V.1 bk.2/86-01

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

MIKE MONRONEY AERONAUTICAL CENTER
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FAA AIRWORTHINESS DIRECTIVES
BIWEEKLY LISTING
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READEX FICHE best copy available

86-01-01 CESSNA: Letter issued January 2, 1986. Applies to Model T303 airplanes (all serial numbers) certificated in any category.

Compliance: Required as indicated, unless previously accomplished.

To prevent hazardous flight characteristics due to accumulations of ice at the unprotected junctures of the horizontal and vertical tail, accomplish the following:

(a) Prior to further flight on those airplanes approved for flight into icing conditions:

(1) Fabricate and install on the instrument panel in clear view of the pilot the following placard using letters of a minimum of 0.10 inch in height: "FLIGHT INTO KNOWN OR FORECAST ICING PROHIBITED."

(2) Revise the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual Supplement "Known Icing Equipment," Section 2, Limitations, by deleting the first paragraph and replacing with the sentence: "Flight into known or forecast icing conditions is prohibited."

(3) Cover the airplane operating placard statement, "This airplane is approved for flight into icing conditions if the proper optional equipment is installed and operational" with opaque tape.

(4) Operate the airplane in accordance with the above limitations.

(b) Prior to further flight on all airplanes with or without approval for flight into icing conditions, revise the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual, Section 3, Emergency Procedures "Icing - inadvertent Encounter" to add the following information in addition to the current published inadvertent icing encounter procedures:

"A small amount (1/8" to 1/4" thickness) of ice on the unprotected junctures of the horizontal and vertical tail may disturb the airflow in such a way as to cause rudder/rudder pedal oscillations, pitch oscillations and possibly an uncommanded nose down pitch change requiring a higher than normal pull force to counteract. This phenomenon varies with certain combinations of airspeed, power setting, flap deflections, sideslips and type of icing conditions.

If this condition is encountered the following action will reduce or eliminate the rudder oscillation and/or pitch change.

(a) Reducing airspeed (by either establishing a climb or reducing power) will reduce or eliminate the condition.

(b) Reducing power will reduce or eliminate the condition at any given airspeed.

(c) Reducing flap deflection will reduce or eliminate the condition at any given airspeed.

(d) Reducing slideslip (improving coordination) will reduce the tendency for the condition to develop."

(c) The Pilot's Operating Handbook and FAA Approved Airplane Flight Manual revision requirements of paragraphs (a)(2) and (b) of this AD may be accomplished by inserting a copy of this AD in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual. For additional information see Cessna Owner Advisory SNL85-60A, dated December 23, 1985.

(d) The requirements of Paragraphs (a), (b), and (c) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FARs) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(e) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209.

All persons affected by this directive may obtain copies of the document referred to herein upon request to the Cessna Aircraft Company, Customer Services, Post Office Box 1521, Wichita, Kansas 67201 or the FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Bennett L. Sorensen, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas; telephone (316) 946-4433.

86-01-02 CESSNA: Letter issued January 6, 1986. Applicable to Model S550 airplanes, Serial Numbers S550-0001 through S550-0079, certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent failure of the cotter pins securing the left and right main landing gear torque link connections, accomplish the following:

A. Incorporate the following into the Limitations Section of the FAA-approved Airplane Flight Manual (AFM). This may be accomplished by including a copy of this AD in the AFM.

"Prior to each flight, verify that the cotter pins securing the left and right main landing gear torque link connections are installed. If either cotter pin is broken or missing, prior to further flight, accomplish the repair procedure referenced in Cessna Alert Service Letter SLA S550-32-03, dated December 20, 1985."

NOTE: See attached drawing, "Main Landing Gear Torque Link, Figure 402."

B. Within the next 30 days or 20 hours time-in-service after the effective date of this AD, whichever occurs first, inspect and repair, if necessary, the left and right main landing gear torque link connections, in accordance with Cessna Alert Service Letter (SLA) S550-32-03, dated December 20, 1985. Compliance with the requirements of this paragraph constitutes terminating action for the requirements of paragraph A., above.

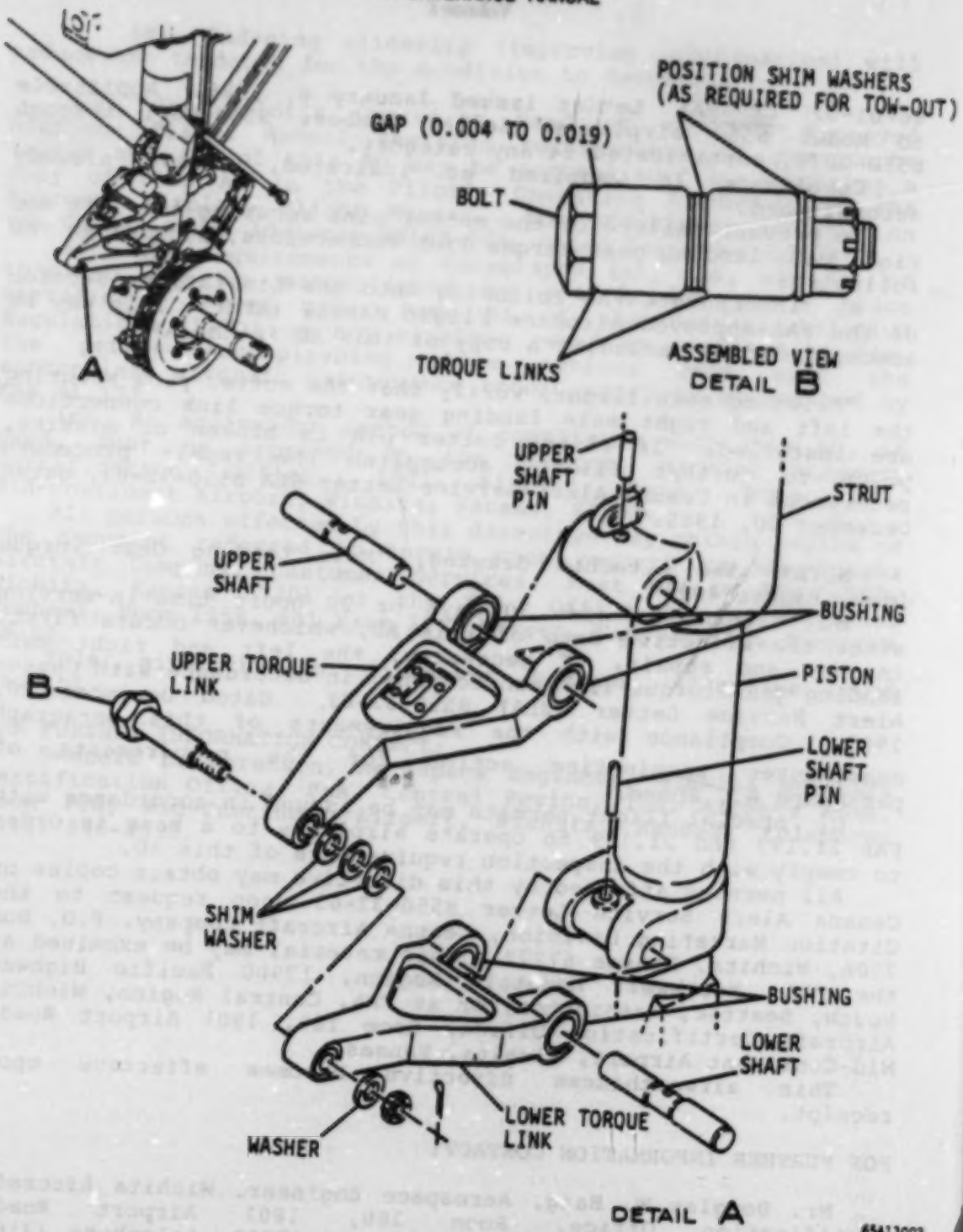
C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the inspection requirements of this AD.

All persons affected by this directive may obtain copies of Cessna Alert Service Letter S550-32-03 upon request to the Citation Marketing Division, Cessna Aircraft Company, P.O. Box 7706, Wichita, Kansas 67277. This material may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at FAA, Central Region, Wichita Aircraft Certification Office, Room 100, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Douglas W. Haig, Aerospace Engineer, Wichita Aircraft Certification Office, Room 100, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4409.



65413003
A65411005
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Main Landing Gear Torque Link
Figure 402

86-01-04 HUGHES HELICOPTERS, INC. (Hughes Helicopters): Amendment 39-5187. Applies to Model 369 series helicopters including military Models YOH-6A and OH-6A, certificated in any category, equipped with tail rotor blades Part Numbers (P/N) 369A1613-3, -7, -501, and -503, Serial Numbers (S/N) 6928 and prior; P/N's 369D21613-11, -41, and -51, S/N's 5144 and prior; P/N 369D21606, S/N's 0077 and prior; P/N 369D21615, S/N's 0480 and prior; and P/N's 421-088-BSC and -3, all serial numbers.

Compliance is required within the next 100 hours time in service after the effective date of this AD, unless already accomplished.

To prevent the loss of a tail rotor blade tip cap in flight and subsequent loss of tail rotor control, accomplish the following:

(a) Remove, inspect, and modify blades in accordance with paragraphs a through g, Part I "PROCEDURE" section of Hughes Service Information Notices (SIN) DN-132.1, EN-21.1, FN-9.1, HN-199.1 dated May 1, 1985, or SIN's DN-129, EN-18, and HN-195 dated August 27, 1984.

(b) An alternate method of compliance which provides an equivalent level of safety may be used when approved by the Manager of the Western Aircraft Certification Office, Hawthorne, California.

(c) Special flight permits may be issued in accordance with FAR Sections 21.197 and 21.199 to ferry aircraft to a maintenance base in order to comply with the requirements of this AD.

The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to McDonnell Douglas Helicopter Company, Centinela Avenue and Teale Street, Culver City, California 90230. These documents also may be examined at the FAA, Southwest Region, Room 158, Building 3B, 4400 Blue Mound Road, Fort Worth, Texas 76106, or at the Western Aircraft Certification Office, 15000 Aviation Boulevard, Hawthorne, California 90250.

This amendment supersedes Amendment 39-4940 (49 FR 43046; October 26, 1984), AD 84-18-08.

This amendment becomes effective February 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Jerry Sullivan, Aerospace Engineer, Airframe Section, ANM-172W, Western Aircraft Certification Office, Northwest Mountain Region, FAA, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007, telephone (213) 297-1166.

86-01-06 AIRBORNE DIVISION, PARKER HANNIFIN CORPORATION: Amendment 39-5206. Applies to the following Airborne Dry Air Pumps and Auxiliary Dry Air Pumps installed on piston engine airplanes certificated in any category:

AIRBORNE PART NUMBER	SERIAL NUMBERS
Dry Air Pumps	
241CC-13	10AA30 thru 10AA36 and 10AA38
242CW	10AA281 thru 10AA293
441CC	9AA260 thru 9AA288
	9AA291, 9AA294, 9AA295
441CC-7	9AA929 thru 9AA-949
	9AA953, 9AA954
	9AA956, 9AA957, 9AA959
442CW	9AA850 thru 9AA875
	9AA880 thru 9AA886, 9AA888 thru 9AA903, 9AA905 thru 9AA921, 9AA928, 9AA934, 9AA936, 9AA939, 9AA940, 9AA945 thru 9AA952, 9AA955 thru 9AA958, 9AA962 thru 9AA967
442CW-4	10AA173 thru 10AA179
	10AA182 thru 10AA199
	10AA201, 10AA202
442CW-12	10AA356, 10AA357, 10AA386, 10AA389
Auxiliary Dry Air Pumps	
4A2-1	9AA44 thru 9AA46
4A3-1	9AA56, 9AA59 thru 9AA66, 9AA73, 9AA79 thru 9AA82 10AA83 thru 10AA88, 10AA90 thru 10AA94, 10AA96, 10AA114, 10AA126, 10AA130, 10AA131, 10AA132, 10AA138, 10AA150, 10AA154, 10AA155, 10AA159, 10AA161

NOTE: These pumps were not available for installation before September 1, 1985. Therefore, new Airborne Dry Air Pumps or Auxiliary Dry Air Pumps installed previous to that date are exempt from this AD. Pumps that have been reworked by Airborne will have a white date code stamped on the pump

housing near the discharge port. This will indicate that the pump complies with this AD.

COMPLIANCE: Required as indicated, unless previously accomplished. To prevent premature failure of the Airborne Dry Air and Auxiliary Dry Air Pumps, accomplish the following:

(a) For Dry Air Pumps P/N's 241CC-13, 242CW, 441CC, 441CC-7, 442CW, 442CW-4, and 442CW-12, prior to further flight in IFR conditions, inspect installed dry air pump(s) to determine if one of the subject pumps is installed.

(1) If one of these pumps is installed, and if the airplane is equipped for IFR flight, fabricate using minimum 0.10 inch letters, and install a placard in full view of the pilot which states; "FLIGHT IN IFR CONDITIONS PROHIBITED", and operate in accordance with this limitation.

(2) And within 15 days of the effective date of this AD, replace the subject pump and remove the placard. Return pump to Airborne as described in Airborne Service Letter No. 30, dated November 11, 1985.

(b) For Airborne Auxiliary Dry Air Pump P/N 4A2-1 or 4A3-1, prior to further flight in IFR conditions, inspect the auxiliary dry air pump if installed, to determine if one of the subject pumps is installed.

(1) If one of these pumps is installed, fabricate using a minimum of 0.10 inch letters and install a placard in full view of the pilot which states;

"STANDBY VACUUM SYSTEM MAY BE INOPERATIVE DUE TO VACUUM PUMP MALFUNCTION".

(2) And within 30 days of the effective date of this AD, replace the subject pump and remove the placard. Return pump to Airborne as described in Airborne Service Letter No. 30, dated November 11, 1985.

(c) Aircraft may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(d) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 232, Des Plaines, Illinois 60018, Telephone (312) 694-7357.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Betty Annable, Parker Hannifin Corp., Airborne Division, 711 Taylor Street, Elyria, Ohio 44036 or the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles Smalley, Aerospace Engineer, Systems and Equipment Branch, ACE-130C, FAA, Central Region, Chicago Aircraft Certification Office, 2300 East Devon Ave., Des Plaines, Illinois 60018; Telephone (312) 694-7126.

EMPRESA BRASILEIRA DE AERONAUTICA
Airworthiness Directive
Final Copy of Telegram
Volume I

85-18-51 EMPRESA BRASILEIRIA DE AERONAUTICA S.A.(EMBRAER): Amendment 39-5174. Applies to Models EMB-110P1 and EMB-110P2 (all serial numbers) airplanes certificated in any category. Compliance: Required within the next 10 hours time in service after the effective date of this AD, unless already accomplished.

To prevent failure of the Bendix electric trim switch resulting in a runaway trim condition, accomplish the following:

(a) Disconnect the electric power source to the Bendix trim servo by disconnecting the trim servo plug located in the aft fuselage section. Cap, protect, and secure the plug.

(b) Fabricate and install on the instrument panel visible to both pilots the following placard using letters of a minimum of 0.10 inch in height: "ELECTRIC TRIM SYSTEM INOPERATIVE PER AD T85-18-51".

(c) Insure that the manual trim system is operational in accordance with the appropriate maintenance manual.

(d) If a Bendix Automatic Pilot is installed, disconnect the automatic pilot system from the electric power source and install in full view of both pilots the following placard using letters of a minimum of 0.10 inch in height "AUTOPILOT INOPERATIVE PER AD T85-18-51".

(e) Aircraft may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished, provided the circuit breakers for the electric trim system, and if applicable, for the automatic pilot system are pulled and the manual trim system is operational.

(f) An equivalent method of compliance with this AD may be used if approved by the Manager, Atlanta Aircraft Certification Office, ACE-115A, Central Region, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7428.

This amendment becomes effective December 5, 1985 as to all persons except those persons to whom it was made immediately effective by telegraphic AD T85-18-51, issued September 12, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:
Mr. Paul Sconyers, ACE-130A, Atlanta Aircraft Certification Office, Central Region, Federal Aviation Administration, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7781.

CESSNA
Airworthiness Directive
Final Copy of Letter
Volume I

85-20-01 CESSNA: Amendment 39-5175. Applies to Model 172RG (Serial Numbers 172RG1135 thru 172RG1187) airplanes certificated in any category.

Compliance: Required as indicated, unless already accomplished. To reduce the possibility of carbon monoxide contamination entering the cabin area, accomplish the following:

(a) Prior to further flight:

(1) Deactivate the cabin heat system by removing the cabin heat control cable from the control arm on the cabin heat valve located on the firewall at the right upper side of the engine compartment. Ensure that the valve spring mechanism is functioning and that the cabin heat valve is spring loaded to the closed position or safety wire the valve to the closed position.

(2) Fabricate and install on the instrument panel visible to the pilot the following placard using letters of a minimum 0.10 inch in height: "DO NOT USE CABIN HEAT", and operate the airplane accordingly.

(b) Within 25 hours time-in-service after the effective date of this AD, remove the muffler shroud and visually inspect the muffler core for damage as a result of drilling the holes through the end plate or improper length attachment screws and if damaged replace the muffler core prior to further flight.

(c) The requirements of paragraph (a) of this AD are no longer required when paragraph (b) of this AD has been accomplished.

(d) The airplane may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished, providing cabin heat is not used during the flight.

(e) An equivalent method of compliance may be used when approved by the Manager, Wichita Aircraft Certification Office, Federal Aviation Administration, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

(f) Report, in writing, all defects found to the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209, within 10 days of the inspection required by paragraph (b) of this AD (Reporting approved by the Office of Management and Budget under OMB No. 2120-0056).

This amendment became effective on December 5, 1985, to all persons except those to whom it has already been made effective by priority letter from the FAA dated September 27, 1985, and is identified as AD 85-20-01.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles D. Riddle, Wichita Aircraft Certification Office, Federal Aviation Administration, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4427.

85-22-11 R1 GLASFLUGEL: Letter issued October 30, 1985, as amended by letter issued December 31, 1985. Applies to "Standard Libelle" and "Standard Libelle-201B" (aircraft serial numbers 1 through 476), and H301 and H301B "Libelle" (all aircraft serial numbers) gliders.

Compliance is required as indicated after receipt of this AD, unless already accomplished.

To prevent fatigue failure of the elevator linkage in the area of the welded seam at the base of the control stick which could result in loss of elevator control, accomplish the following:

(a) Within the next 10 hours time in service after the receipt of AD 85-22-11 (priority letter), issued October 30, 1985, and thereafter at intervals not to exceed 10 hours time in service after the last inspection, unless compliance with paragraph (c) is already accomplished, visually inspect the elevator linkage, Part Number 301-41-3/2, by means of a magnifying glass of at least 5 times magnification for cracks in the area of the welded seam at the base of the control stick.

(b) If a crack is found during the inspection required by paragraph (a) of this AD, before further flight, replace elevator linkage in accordance with the procedures in paragraph (c).

(c) Within the next 50 hours time in service after receipt of this AD, but no later than July 1, 1986, replace the elevator linkage, Part Number 301-41-3/2, with Part Number 301-41-4/2, in accordance with Glasflugel Technical Notes Nos. 201-22, dated July 29, 1980, for Models "Standard Libelle" and "Standard Libelle-201B", and 301-31, dated July 29, 1980, for Models H 301 and H 301B "Libelle" gliders, or an FAA-approved equivalent.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium, telephone 513.38.30 ext. 2710.

Glasflugel Technical Notes Nos. 201-22 and 301-31, dated July 29, 1980, identified and described in this directive, and the elevator linkage Part Number 301-41-4/2, may be obtained from: Mr. Hansjoerg Streifender, Bruelstrasse 12, 7318 Lenningen 2, Federal Republic of Germany.

The airworthiness directive letter issued October 30, 1985, became effective upon receipt.

This airworthiness directive letter issued December 31, 1985, becomes effective upon receipt.

85-22-11 R1

FOR FURTHER INFORMATION CONTACT:

Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium, telephone 513.38.30 ext. 2710, or Richard B. Noll, ANE-152, Boston Aircraft Certification Office, FAA New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7111.

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86-02-04 CENTRAIR SAILPLANES: Amendment 39-5208. Applies to Centrair Model 101, 101A, 101P and 101AP gliders certificated in any category.

Compliance is required within 30 days after the effective date of this AD, unless already accomplished.

To prevent unintended release of the tow cable hook during takeoff, accomplish the following in accordance with figures 1 and 2:

(a) Insure that the tow release cable guide is mounted on the back of the bulkhead (fig. 2). If the guide is mounted on the front of the bulkhead (fig. 1), remount it on the back.

(b) Check dimension A (fig. 2) for proper neutral travel. (A minimum of 13/64" and a maximum of 18/64".) If dimension A is not found to be within this range:

(1) On gliders equipped with a rear tow hook only, adjust the threaded end fittings (no. 1, fig. 2).

(2) On gliders equipped with a front tow hook only, replace the cable (no. 4, fig. 2) with a new one (Centrair P/N 101 150 0003 025).

(3) On gliders with front and rear hooks replace the cable (no. 4, fig. 2) with a new one (Centrair P/N 101 150 0003 025) and adjust the threaded end fittings so that the tension is identical on the two hooks and they release together.

(c) After completing paragraph (b), check dimension B (fig. 2) for proper neutral travel (a minimum of 30/64" and a maximum of 35/64"). If dimension B is not found to be within this range:

(1) On gliders with a rear tow hook only and with a plastic tube between the release cable fitting and the cable guide (no. 3, fig. 2) adjust by shortening the plastic tube and/or adjusting the threaded end fittings (no. 1, fig. 2). If there is no plastic tube, adjust the threaded end fittings. If proper neutral travel cannot be obtained, replace the control cable (no. 2, fig. 2) with a new one (Centrair P/N 101 150 0003 024).

(2) On gliders with front and rear hooks, or with a front hook only, and with the plastic tube, shorten the tube. If there is no tube or no neutral travel cannot be obtained, replace the control cable (no. 2, fig. 2) with a new one (Centrair P/N 101 150 0003 024).

(3) Repeat paragraphs (b) and (c) to determine that the proper ranges of neutral travel for dimensions A and B (fig. 2) are simultaneously met.

NOTE: Centrair SB No. 101-5 dated December 19, 1984, addresses this subject.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, Federal Aviation Administration, c/o American Embassy, 1000 Brussels, Belgium, telephone 513.38.30, x2710.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Brussels Aircraft Certification Office may adjust the compliance time specified in this AD.

This amendment becomes effective on January 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Terry Fahr, ANE-153, Federal Aviation Administration, New England Region, Boston Aircraft Certification Office, 12 New England Executive Park, Burlington Massachusetts 01803, telephone (617) 273-7103.

FIGURE 1

INCORRECT INSTALLATION
Cable guide mounted on the front of the bulkhead

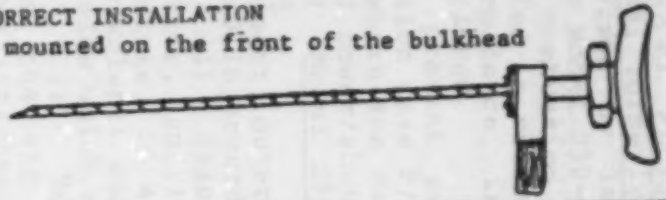
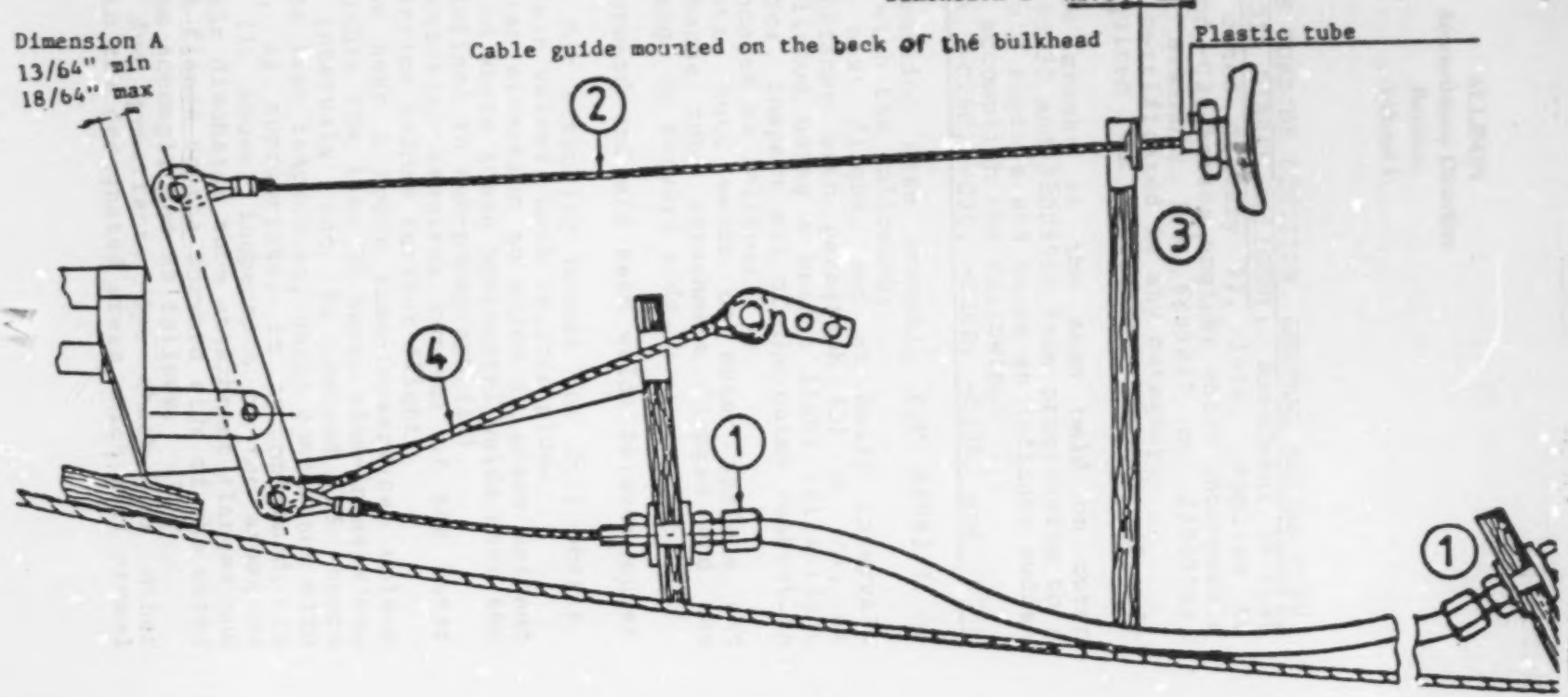
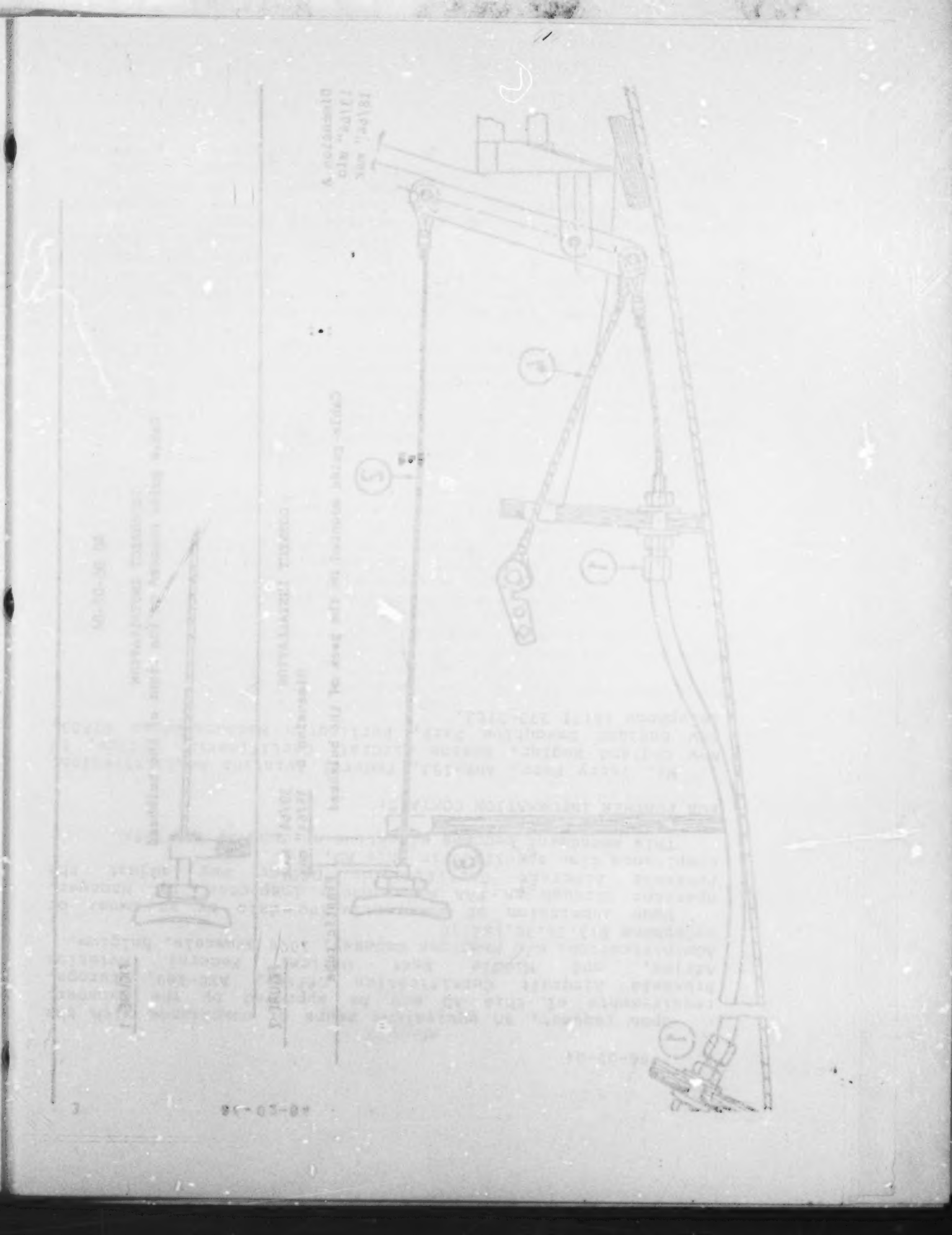


FIGURE 2

CORRECT INSTALLATION





85-25-07 R1 ALLISON GAS TURBINE DIVISION, GENERAL MOTORS CORP. (ALLISON, formerly DETROIT DIESEL ALLISON): Amendment 39-5188 as revised by letter dated January 22, 1986. Applies to Allison Model 250-C28 and -C30 Series engines which incorporate outer combustion case assembly P/N 6899237 or 23009569, installed in rotorcraft certificated in any category.

Compliance is required as indicated unless already accomplished.

To prevent possible cracks at the seam weld on outer combustion case P/Ns 6899237 and 23009569 from progressing to a point where the case could rupture and cause an inflight sudden loss of power/shutdown, accomplish the following:

(a) Model 250-C28B, -C28C, -C30, -C30P, -C30R, and -C30S engines

Inspect outer combustion case assembly P/N 6899237 or 23009569 in accordance with the following:

(1) Prior to next flight, and at daily intervals thereafter, until compliance with paragraph (b) or (c), as appropriate, is accomplished, using a bright light (flashlight or equivalent) and mirror, inspect all of the outer combustion case welds which are located as follows:

(i) Horizontal butt welds on outer surface and between the air discharge tube attachment flanges and gas producer attachment flange on forward side.

(ii) Both forward and aft seam welds between outer case and inner liner.

(iii) Welds for attaching bosses for fuel nozzle, both combustion case drain valves, both igniter plugs.

NOTE: Pay particular attention to welds in areas defined in sub-paragraphs (i) and where these horizontal welds meet the circumferential welds defined in sub-paragraph (ii).

Detection of any crack(s) requires removal of the outer combustion case from service before further flight.

(2) Within the next 5 hours time-in-service, unless already accomplished within the last 20 hours time-in-service, and thereafter, at intervals not to exceed 25 hours time-in-service from the last inspection, until compliance with paragraph (b) or (c), as appropriate, is accomplished, in addition to paragraph (1) above, inspection of the areas of butt weld between the air discharge tube attachment flanges and gas producer attachment flange on the forward side of the outer combustion case is to be accomplished as follows:

(i) Apply dye penetrant, dye check, or other appropriate penetrant to the designated areas which will reveal crack(s), or

(ii) Apply a soap solution to the designated areas and, using a suitable power source to motor engine to at least 20 percent N1, look for bubbles to reveal if any crack(s) are present.

Detection of any crack(s) requires removal of the outer combustion case from service before further flight.

(b) Model 250-C30 and -C30S engines installed in Sikorsky Model S-76A rotorcraft

Within the next 150 hours time-in-service after the effective date of this AD, but not later than January 31, 1986, perform the following:

Replace/modify outer combustion case assembly P/Ns 6899237 and 23009569 with/to P/Ns 23030910 and 23030911, respectively, in accordance with Allison CEB-A-72-2113/3115, Revision 1, dated February 15, 1985, or FAA approved equivalent.

(c) Model 250-C28B, -C28C, -C30, -C30P, -C30R, and -C30S engines installed in other than Sikorsky S-76A rotorcraft

At the next turbine repair/overhaul event, but not later than June 30, 1986, perform the following:

Replace/modify outer combustion case assembly P/Ns 6899237 and 23009569 with/to P/Ns 23030910 and 23030911, respectively, in accordance with Allison CEB-A-72-2113/3115, Revision 1, dated February 15, 1985, or FAA approved equivalent.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Chicago Aircraft Certification Office, may adjust the compliance time specified in this AD.

Allison CEB-A-72-2113/3115, Revision 1, dated February 15, 1985, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Allison Gas Turbine Division, General Motors Corp., P.O. Box 420, Indianapolis, Indiana 46206-0420. This document also may be examined at the Office of Regional Counsel, FAA, ATTN: Rules Docket No. 85-ANE-43, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

Amendment 39-5188 became effective January 6, 1986.

This priority letter revision to AD 85-25-07 becomes effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Royace H. Prather, Chicago Aircraft Certification Office. Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone 312-694-7132.

CESSNA
Airworthiness Directive
Revision
Volume I

86-01-01 R1 CESSNA: Letter issued January 2, 1986, and letter issued January 17, 1986. Applies to Model T303 airplanes (all serial numbers) certificated in any category.

Compliance: Required as indicated, unless previously accomplished.

To prevent hazardous flight characteristics due to accumulations of ice at the unprotected junctures of the horizontal and vertical tail, accomplish the following:

(a) Prior to further flight on those airplanes approved for flight into icing conditions:

(1) Fabricate and install on the instrument panel in clear view of the pilot the following placard using letters of a minimum of 0.10 inch in height: "FLIGHT INTO KNOWN ICING PROHIBITED."

(2) Revise the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual Supplement "Known Icing Equipment," Section 2, Limitations, by deleting the first paragraph and replacing with the sentence: "Flight into known icing conditions is prohibited."

(3) Cover the airplane operating placard statement, "This airplane is approved for flight into icing conditions if the proper optional equipment is installed and operational" with opaque tape.

(4) Operate the airplane in accordance with the above limitations.

(b) Prior to further flight on all airplanes with or without approval for flight into icing conditions, revise the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual, Section 3, Emergency Procedures "Icing - Inadvertent Encounter" to add the following information in addition to the current published inadvertent icing encounter procedures:

"A small amount (1/8" to 1/4" thickness) of ice on the unprotected junctures of the horizontal and vertical tail may disturb the airflow in such a way as to cause rudder/rudder pedal oscillations, pitch oscillations and possibly an uncommanded nose down pitch change requiring a higher than normal pull force to counteract. This phenomenon varies with certain combinations of airspeed, power setting, flap deflections, sideslips and type of icing conditions.

If this condition is encountered the following action will reduce or eliminate the rudder oscillation and/or pitch change.

(a) Reducing airspeed (by either establishing a climb or reducing power) will reduce or eliminate the condition.

(b) Reducing power will reduce or eliminate the condition at any given airspeed.

(c) Reducing flap deflection will reduce or eliminate the condition at any given airspeed.

(d) Reducing slideslip (improving coordination) will reduce the tendency for the condition to develop."

(c) The Pilot's Operating Handbook and FAA Approved Airplane Flight Manual revision requirements of paragraphs (a)(2) and (b) of this AD may be accomplished by inserting a copy of this AD in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual. For additional information see Cessna Owner Advisory SNL85-60A, dated December 23, 1985.

(d) The requirements of Paragraphs (a), (b), and (c) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FARs) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(e) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209.

All persons affected by this directive may obtain copies of the document referred to herein upon request to the Cessna Aircraft Company, Customer Services, Post Office Box 1521, Wichita, Kansas 67201 or the FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

Airworthiness Directive issued January 2, 1986, became effective upon receipt.

This airworthiness directive issued January 17, 1986, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Bennett L. Sorensen, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas; telephone (316) 946-4433.

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86-02-01 BOEING: Amendment 39-5214. Applies to Model 767 airplanes, as listed in Boeing Service Bulletin 767-52-0041, dated December 13, 1985, certificated in any category. Compliance is required within 30 days after the effective date of this AD. To ensure proper door opening, accomplish the following, unless already accomplished:

A. Inspect all entry/service door operating mechanisms for integrity of the upper and lower pushrod installations and repair, if necessary, in accordance with Boeing Service Bulletin 767-52-0041 dated December 13, 1985, or later FAA-approved revisions.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this AD who have not already received copies of the service bulletin cited herein may obtain copies upon request from the Boeing Commercial Airplane Company, P. O. Box 3707, Seattle, Washington 98124. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This Amendment becomes effective February 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Pliny Brestel, Airframe Branch, ANM-120S; telephone (206) 431-2931. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-02-02 BOEING: Amendment 39-5201. Applies to Model 757 airplanes listed in Boeing Service Bulletin Number 757-25-0047, Revision 1, certificated in any category. To prevent the overloading of the main deck floor as the result of a sudden decompression, accomplish the following within 120 days after the effective date of this AD, unless already accomplished:

A. Inspect and, if necessary, rework and reinstall the cargo compartment blowout panel assemblies in accordance with Paragraph III of Boeing Service Bulletin 757-25-0047, Revision 1, or later FAA-approved revision.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company, P. O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective February 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Stanton R. Wood, Airframe Branch, ANM-120S; telephone (206) 431-2924. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-02-03 BOEING: Amendment 39-5213. Applies to Boeing Model 747-300 series airplanes, as listed in Boeing Alert Service Bulletin 747-52A2198, certificated in any category. Compliance is required within 30 days after the effective date of this amendment. To ensure proper automatic slide deployment and door opening, accomplish the following, unless already accomplished:

A. Inspect the upper deck left and right door to verify the installation of acceptable self-locking nuts and replace defective or missing hardware, if necessary, in accordance with Boeing Alert Service Bulletin 747-52A2198 dated December 13, 1985, or later FAA-approved revisions.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this AD who have not already received copies of the service bulletin cited herein may obtain copies upon request from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective January 27, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Pliny Brestel, Airframe Branch, ANM-120S; telephone (206) 431-2931. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-02-05 BRITISH AEROSPACE: Amendment 39-5204. Applies to Vickers Viscount Model 700 series airplanes certificated in any category. Compliance is required as follows, unless previously accomplished. To prevent nose landing gear collapse as a result of a faulty hydraulic cut out valve, accomplish the following:

A. Within the next 1000 hours time-in-service or nine months after the effective date of this AD, whichever occurs first, modify the aircraft hydraulic system cut out valve, Part Number AIR 41916, in accordance with Automotive Products Modification Standard SA 3490, dated December 16, 1959 (reference BAe Technical News Sheet No. 369, Issue 1, dated August 5, 1985).

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to British Aerospace Inc., Box 17414, Dulles International Airport, Washington, D.C. 20041. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective February 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Harold N. Wantiez, Standardization Branch, ANM-113; telephone (206) 431-2977. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-02-06 BOEING: Amendment 39-5222. Applies to all Model 727 series airplanes, certificated in any category.

To detect cracks in the Body Station 1183 pressure bulkhead web and strap, accomplish the following:

A. For airplanes with 40,000 or more flight cycles on the effective date of this AD, within the next 300 flight cycles, unless accomplished within the last 3,200 flight cycles, and thereafter at intervals not to exceed 3,500 flight cycles, inspect and repair, if necessary, in accordance with paragraph D., below.

B. For airplanes with 33,000 or more flight cycles and less than 40,000 flight cycles on the effective date of this AD, within the next 1,500 flight cycles, unless accomplished within the last 2,000 flight cycles, and thereafter at intervals not to exceed 3,500 flight cycles, inspect and repair, if necessary, in accordance with paragraph D., below.

C. For airplanes with fewer than 33,000 flight cycles on the effective date of this AD, prior to the accumulation of 30,000 flight cycles or within the next 3,500 flight cycles after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 3,500 flight cycles, inspect and repair, if necessary, in accordance with paragraph D., below.

D. Accomplish a close visual inspection of the web and strap for cracks in accordance with Figure 1 of Boeing Service Bulletin 727-53-0171, dated September 6, 1985, or later FAA-approved revision. If any cracks are detected, repair prior to further flight in accordance with the -1 or -3 repair kits in Boeing Drawing Number 65C31446.

E. For airplanes repaired in accordance with the -1 repair kit in Boeing Drawing Number 65C31446, repeat the inspection of paragraph D., above, within the next 15,000 flight cycles after the repair and thereafter at intervals not to exceed 3,500 flight cycles.

F. For airplanes repaired in accordance with -3 repair kit in Boeing Drawing Number 65C31446, the repetitive inspection requirements of this AD are terminated.

G. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

H. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective February 6, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Stanton R. Wood, Airframe Branch, ANM-120S; telephone (206) 431-2924. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

T86-02-51 PRATT & WHITNEY: Telegram issued January 24, 1986. The following TAD is issued and made applicable to Pratt and Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR turbofan engines overhauled by Aerothrust Corporation of Miami, Florida, with the following serial numbers:

653453	702938	654857	687323
687413	687309	649281	649285
648779	649019	654072	653838
653512	654909	653854	649581
654034	649283	657112	656120
656854	689935	637429	655366
689877	653992	688445	688444
688418	688132	654975	688839
688844	696720	653996	666764
667127	653509	667130	667204
667216	667109	657714	653699
666738	666993	666661	666685
666980	975591	666716	657201
666976	666830	000004	657058
656975	657742	667059	657699
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649655	665873	688473	688441
688440	656047	688505	674268
688504	688509	677591	657066
666898	656047	657480	649255
649120	654595	649218	702975
696688	653645	653526	

Compliance required as indicated unless already accomplished. To prevent uncontained rupture of the outer combustion case due to cracking and failure of the combustion chamber causing hot gases to impinge on the case wall accomplish the following:

NOTE 1. For the initial inspection TSI is defined as hours or cycles since installation by Aerothrust. Thereafter for the repetitive inspections, TSI is defined as hours or cycles since the last inspection.

2. For the initial inspection the cumulative crack length at the 2-3 seam weld is that present at the time of installation by Aerothrust as determined by individual chamber X-ray film records on file at Aerothrust. Thereafter for

repetitive inspections the cumulative crack length is that defined by the last inspection.

3. Investigation is continuing and pending the results additional engine serial numbers may be added to this TAD.

Borescope inspect combustion chamber 2-3 seam welds in accordance with Pratt and Whitney Service Bulletin Number 5639 dated November 15, 1985, or FAA approved equivalent and remove as required per the following schedule:

A. Remove from service within the next 100 hours or 100 cycles time in service, whichever occurs first, chambers with greater than 8 inches but less than or equal to 12 inches cumulative crack length at installation by Aerothrust.

B. Remove from service prior to further flight chambers with greater than 12 inches cumulative crack length at installation by Aerothrust.

C. Inspect prior to accumulating 2000 hours or 1500 cycles time since inspection (TSI) whichever occurs first, for chambers with 3 inches or less cumulative crack length.

D. Inspect prior to accumulating 1500 hours or 1000 cycles TSI, whichever occurs first, for chambers with greater than 3 inches but less than or equal to 6 inches cumulative crack length.

E. Inspect prior to accumulating 250 hours or 200 cycles TSI, whichever occurs first, for chambers with greater than 6 inches but less than or equal to 8 inches cumulative crack length.

F. Chambers with cumulative crack length at installation as prescribed in paragraph C, D, or E, above but with hours or cycles greater than the initial inspection threshold TSI must be inspected within the next 100 hours or 100 cycles time in service whichever occurs first.

G. Chambers for which the cumulative crack length at installation by Aerothrust cannot be confirmed must be inspected within the next 100 hours or 100 cycles time in service whichever occurs first.

H. Thereafter reinspect chambers in accordance with the appropriate inspection interval of paragraph C, D, or E above as determined by the crack length at last inspection. Remove from service, prior to further flight, any chambers with greater than 8 inches cumulative crack length at reinspection.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the TAD can be accomplished. Upon request an equivalent means of compliance with the requirements of this TAD may be approved by the Manager, Engine Certification Office, New England Region.

Upon submission of substantiating data by an owner or operator through a Federal Aviation Administration Maintenance Inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this TAD.

This TAD supersedes TAD T85-17-51 R1 for the engines affected by this TAD.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

James Jones, Engine Certification Branch, ANE-141, Engine Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7121.

85-03-06 R1 BOEING: Amendment 39-4998 as amended by Amendment 39-5205. Applies to Model 737 series airplanes certificated in all categories listed in Boeing Service Bulletin 737-53-1031, Revision 3, dated October 28, 1983. To prevent rapid decompression resulting from undetected cracking of the wing-to-body drag angle, accomplish the following (unless previously accomplished) prior to the accumulation of 8,000 landings on Group I airplanes, or 35,000 landings on Group II airplanes, or within 1 year or 4,000 landings from the effective date of this AD, whichever occurs later:

A. Visually inspect the upper drag angles for cracks in accordance with the Flight Safety Addendum of Boeing Service Bulletin 737-53-1031, Revision 3, or later FAA approved revisions. Repeat the visual inspections at intervals not to exceed 4,000 landings.

B. If cracks are found, replace cracked parts with new aluminum parts and continue the inspections of paragraph A., above, or modify in accordance with the Accomplishment Instructions in Boeing Service Bulletin 737-53-1031, Revision 1, or later FAA-approved revisions.

C. Modification of airplanes in accordance with Accomplishment Instructions of Boeing Service Bulletin 737-53-1031, Revision 1, or later FAA-approved revisions, constitutes terminating action for this AD.

D. Airplanes may be flown to a maintenance base for drag angle replacement or modification in accordance with FAR 21.197 and 21.199 with prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

E. For purposes of complying with the AD, subject to acceptance by the assigned FAA Principal Maintenance Inspector, the number of landings may be determined by dividing each airplane's time in service by the operator's fleet average time from takeoff to landing for the airplane type.

F. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, Northwest Mountain Region, Seattle, Washington.

G. Upon request by the operator, an FAA Principal Maintenance Inspector, subject to prior approval by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the repetitive inspection intervals in this AD, if the request contains substantiating data to justify the increase for the operator.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain

copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-4998 became effective March 11, 1985.

This Amendment 39-5205 becomes effective February 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Carlton Holmes, Airframe Branch, ANM-120S; telephone (206) 431-2926. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

FOR FURTHER INFORMATION CONTACT:

Bennett L. Sorensen, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4433.

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86-03-01 GARRETT TURBINE ENGINE COMPANY (formerly the AiResearch Manufacturing Company of Arizona): Amendment 39-5212. Applies to all Model TFE731-2, -3, -3A, -3AR, -3B, -3BR, and -3R turbofan engines installed in aircraft certified in all categories equipped with turbine interstage transition ducts, part numbers 3071486-3 through -10, 3072318-1 and -3, 3072726-1 and -2, identified by individual serial numbers (hereinafter referred to as duct(s)).

Compliance is required prior to the accumulation of 1,150 hours time in service from the effective date of this AD, unless already accomplished.

NOTE: A substantial number of additional ducts were found to be subject to the same defect after Garrett issued SB TFE731-72-3309, dated March 7, 1985. This SB was specified in the NPRM (50 FR 19033). Revision 1 of said SB, dated September 6, 1985, was subsequently issued, and it now contains complete listings of affected ducts. Therefore, engines which were determined to be unaffected in accordance with the original SB, must be reverified.

To prevent separation of the engine rear mount from the duct, accomplish the following:

(a) Determine, by engine visual inspection, whether the turbine interstage transition duct S/N is included in Table 1 or Table 2 of Garrett SB TFE731-72-3309, Revision 1, dated September 6, 1985, (SB 3309) or FAA-approved equivalent.

(1) Engine visual inspection which ensures that the duct S/N is not in Table 1 or Table 2 constitutes terminating action for this AD.

(2) Ducts listed in Table 1 are known to have inadequate weld penetration, and require modification or replacement as specified below. Ducts listed in Table 2 might have inadequate weld penetration, and must either pass the additional X-ray inspection or be modified or replaced, as specified below.

(b) Replace any duct listed in Table 1 of SB 3309 with a serviceable duct, or perform the actions of SB 3309, paragraph 2.B. (modification).

(c) Replace any duct listed in Table 2 of SB 3309 with a serviceable duct, or perform the actions of SB 3309, paragraph 2.C. (X-ray inspection and/or modification).

NOTES: (1) Regardless of statements in SB 3309 referring to the installation of the aft mount auxiliary bracket (in accordance with SB TFE731-72-3170) as an "interim compliance", such installation constitutes terminating action for this AD. Ducts which are modified by incorporation of the aft mount

auxiliary bracket, shall not have the bracket removed and be returned to service unless the other actions of SB 3309, paragraph 2.B. or 2.C., as applicable, are performed.

(2) The aft mount auxiliary bracket requires a longer engine mount bolt which is a new aircraft part. Therefore, each type aircraft using this bracket must have an FAA-approved SB to complete the installation; otherwise the bracket shall not be used.

(d) For ducts which are determined to have a satisfactory weld at a clevis position used to mount the engine to the aircraft, but are determined to have an unsatisfactory weld(s) at the other clevis position(s), an FAA-approved alternative means of compliance with the provisions of SB 3309, paragraph 2.B.(2) or 2.C.(6), as applicable, is as follows:

(1) Cut through the bolt holes of the unsatisfactory clevis(es) in accordance with paragraph 2.F.(1) of SB TFE731-72-3159, Revision 5, dated September 6, 1985, or FAA-approved equivalent;

(2) Efface existing part number on duct and electrochemically etch new part number (0.0004 inch maximum depth) in accordance with:

OLD PART NO.	NEW PART NO.
3071486-3	3071486-11
3071486-4	3071486-12
3071486-5	3071486-13
3071486-6	3071486-14
3071486-7	3071486-15
3071486-8	3071486-16
3071486-9	3071486-17
3071486-10	3071486-18
3072318-1	3076070-1
3072318-3	3076070-2
3072726-1	3076070-3
3072726-2	3076070-4

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Western Aircraft Certification Office, P.O, Box 92007, Worldway Postal Center, Los Angeles, California 90009.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009 may adjust the compliance time specified in this AD.

Garrett SB Nos. TFE731-72-3309, Revision 1, dated September 6, 1985; TFE731-72-3159, Revision 5, dated September 6, 1985; and TFE731-72-3170, Revision 2, dated March 7, 1985, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Garrett General Aviation Service

Company, Department H65-1, Building 601AD, P.O. Box 29003, Phoenix, Arizona 85038.

These documents also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, Room 311, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on February 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Aerospace Engineer, Propulsion Section, ANM-174W, FAA Northwest Mountain Region, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1382.

DEHAVILLAND
Airworthiness Directive
Final Copy of Letter
Volume I

85-16-10 DEHAVILLAND: Amendment 39-5216. Applies to Models DHC-6-1, DHC-6-100, DHC-6-200, and DHC-6-300 (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 25 hours time-in-service (TIS) after receipt of this AD, unless already accomplished within the last 475 hours TIS, and thereafter at intervals not to exceed 500 hours TIS from the last inspection.

To detect cracks in the forward wing-fuselage attachment fittings and preclude loss of the airplane accomplish the following:

(a) Visually inspect the wing attachment fittings as follows:

(1) Remove both left and right upper wing-fuselage fairings.

(2) Visually inspect the top inner faces of the left and right forward wing attachment fittings (either P/N C6WM1031-1 and -2, or P/N C6WM1133-1 and -2 for cracks using dye penetrant and at least a 10-power magnifying glass.

NOTE: The area of concern is at the forward lug aft inner face where the top corner blends into the fitting.

(b) If a crack is found during any inspection required by this AD, prior to further flight, replace the cracked part with a P/N C6WM1133-1 or P/N C6WM1133-2 fitting.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) Report, in writing, all defects found including crack length, to the Manager, New York Aircraft Certification Office, FAA, New England Region, within 48 hours of the inspection. (Reporting approved by the Office of Management and Budget under OMB No. 2120-0056.)

(e) An equivalent means of compliance or an adjustment of the compliance time which provides an equivalent level of safety, may be used if approved by the Manager, New York Aircraft Certification Office, FAA, New England Region, 181 South Franklin Avenue, Valley Stream, New York 11581.

This amendment becomes effective on January 27, 1986, to all persons except those to whom it has already been made effective by priority letter from the FAA issued August 14, 1985, and dated August 15, 1985, and is identified as AD 85-16-10.

FOR FURTHER INFORMATION CONTACT:

Mr. Lester Lipsius, Federal Aviation Administration, New York Aircraft Certification Office, ANE-172, Room 202, 181 South Franklin Avenue, Valley Stream, New York 11581; telephone (516) 791-6220.

CESSNA
Airworthiness Directive
Final Copy of Letter
Volume I

85-23-06 CESSNA: Amendment 39-5225. Applies to Model T303 (Serial Numbers T30300001 thru T30300315) airplanes certificated in any category.

Compliance: Required within the next 10 hours time-in-service from the effective date of this AD, unless already accomplished.

To preclude the possibility of the fuel metering unit tee fittings from leaking and causing a fire, accomplish the following:

(a) Remove both engine cowlings to the extent required to adequately examine the turbocharger inlet area and fuel metering units. Visually inspect the turbocharger inlet and surrounding area for evidence of significant damage caused by exhaust gas leakage. If noted, prior to further flight, repair the damage and eliminate the cause of the leak.

(b) With the aircraft auxiliary fuel pumps on and the mixture control in the idle cutoff position, visually inspect the fuel metering unit tee fitting for cracking and leakage in the threaded area that goes into the fuel metering unit. If a crack and resultant leak is detected, prior to further flight replace the fitting, using a wrench on the fitting, to isolate the effects of attaching and tightening the fuel lines. Do not over torque the fitting when installing it on the metering unit.

(c) The aircraft may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(d) Within five (5) days of accomplishing this AD, report, in writing, all defects found during accomplishment of this AD to the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209. (Reporting approved by the Offices of Management and Budget under OMB No. 2120-0056.)

(e) An equivalent method of compliance may be used when approved by the Manager, Wichita Aircraft Certification Office, Federal Aviation Administration, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

This amendment becomes effective on February 5, 1986, to all persons except those persons to whom it has already been made effective by priority letter from the FAA dated November 14, 1985, and is identified as AD 85-23-06.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles D. Riddle, Wichita Aircraft Certification Office, Federal Aviation Administration, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4427.

KING
Airworthiness Directive
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85-23-07 KING RADIO CORPORATION: Amendment 39-5217. Applies to Models KFC 150, KAP 150 and KAP 100 autopilot systems which use the following flight computers and are certificated to the applicable requirements of Technical Standard Orders C9c and C52a (*):

MODEL	PART NO.	SERIAL NO.
KC 190	065-0055-00	all serial numbers
	065-0055-01	all serial numbers
	065-0055-02	1474 and below
	065-0055-03	10095 and below
KC 191	065-0054-00	all serial numbers
	065-0054-01	all serial numbers
	065-0054-02	20754 and below
	065-0054-03	30227 and below
	065-0054-04	20754 and below
	065-0054-05	30227 and below
KC 192	065-0042-00	all serial numbers
	065-0042-01	all serial numbers
	065-0042-02	40614 and below
	065-0042-03	50464 and below
	065-0042-04	40614 and below
	065-0042-05	50464 and below

(*) Units with serial numbers above those stated comply with this AD at time of shipment from King Radio Corporation.

Compliance: Required as indicated unless already accomplished.

To prevent undetected trim malfunctions that may result in significant mistrim conditions, accomplish the following:

(a) For affected flight computers not installed in an aircraft, prior to further use, modify the computer in accordance with the instructions contained in King Radio Corporation Alert Service Bulletin KC 190/191/192-9 dated November 6, 1985.

(b) For affected flight computers installed in the following airplanes:

AIRCRAFT MAKE AND MODEL	STC NUMBER
Mooney M20J, M20K	SA1561CE-D
Piper PA-28RT-201, PA-28RT-201T	SA1563CE-D
Piper PA-28-161, PA-28-181, PA-28-236	SA1565CE-D
Piper PA-32-301, PA-32-301T	SA1567CE-D
Cessna 172RG	SA1568CE-D
Cessna U206G, TU206G (Landplane, Seaplane, and Amphibian)	SA1569CE-D
Cessna 172P	SA1570CE-D
Cessna R182, TR182	SA1571CE-D
Piper PA-32R-301, PA-32R-301T	SA1572CE-D
Beech A36, A36TC, B36TC	SA1574CE-D
Piper PA-34-200T, PA-34-220T	SA1575CE-D
Cessna 182P, 182Q, 182R, T182	SA1770CE-D
Cessna 172L S/N 17256631	SA1772CE-D
Piper PA-46-310P	SA1778CE-D
Reims-Cessna FR182	SA1783CE-D
Partenavia AP68TP 300	SA1784CE-D
SOCATA TB20	SA1785CE-D
Beech F33A	SA1789CE-D
Partenavia P68C, P68C-TC	SA1791CE-D
Reims-Cessna F182P, F182Q	SA1794CE-D
Cessna 210R, T210R	SA2050CE-D

(1) Within the next 10 hours time-in-service (TIS) after the effective date of this AD, deactivate the autopilot and electric trim by pulling the respective circuit breakers and banding by placing a tie wrap or equivalent around the circuit breaker stem.

(2) Fabricate and install on the instrument panel in clear view of the pilot the following placard using letters of a minimum 0.10 inch in height: "AP AND ELECTRIC TRIM INOPERATIVE PER AD 85-23-07" and operate the aircraft accordingly.

(3) Within 50 hours TIS or 120 calendar days, whichever comes first, after the effective date of this AD, modify the flight computer in accordance with the instructions contained in King Radio Corporation Alert Service Bulletin KC 190/191/192-9 dated November 6, 1985.

(4) The requirements of paragraphs (b)(1) and (b)(2) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FARs) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(5) The requirements of paragraphs (b)(1) and (b)(2) of this AD are no longer required when paragraph (b)(3) of this AD has been accomplished.

(c) For affected flight computers installed in the following airplanes:

AIRCRAFT MAKE AND MODEL	STC NUMBER
Piper PA-60-700P	SA1777CE-D

(1) Within the next 10 hours TIS after the effective date of this AD, deactivate the autopilot by pulling the respective circuit breaker and banding open by placing a tie wrap or equivalent around the circuit breaker stem.

(2) Fabricate and install on the instrument panel in clear view of the pilot the following placard using letters of a minimum 0.10 inch in height: "AP INOPERATIVE PER AD 85-23-07", and operate the aircraft accordingly.

(3) Within 50 hours TIS or 120 calendar days, whichever comes first, following the effective date of this AD, modify the flight computer in accordance with the instructions contained in King Radio Corporation Alert Service Bulletin KC190/191/192-9 dated November 6, 1985.

(4) The requirements of paragraphs (c)(1) and (c)(2) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FARs) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(5) The requirements of paragraphs (c)(1) and (c)(2) of this AD are no longer required when paragraph (c)(3) of this AD has been accomplished.

(d) The modification requirements of paragraphs (b)(3) and (c)(3) of this AD must be accomplished by an appropriate FAA certified radio repair station.

(e) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where this AD can be accomplished.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to King Radio Corporation, 400 North Rogers Road, Olathe, Kansas 66062, or the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective January 27, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 85-23-07, issued November 20, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Ralph W. Rissmiller, Jr., Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

KING
Airworthiness Directive
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85-25-02 KING RADIO CORPORATION: Amendment 39-5218. Applies to Models KFC 200, KFC 150, KAP 150 and KAP 100 autopilot systems utilizing Model KS 177 pitch servo, P/N 065-0050-04 and -012 and/or Model KS 178 roll servo, P/N 065-0051-01 and -02, S/N 2461 and below. These autopilot systems have been installed in accordance with Supplemental Type Certificates (STC) shown in the following table. Some airplane logbooks may not show evidence of the STC number:

AUTOPILOT MODEL	AIRPLANE MODEL	STC	AXIS AFFECTED
KFC 200	Mooney M20J, M20K	SA1771CE-D*	pitch and roll
KFC 150, KAP 150	Mooney M20J, M20K	SA1561CE-D	pitch and roll
KAP 100	Mooney M20J, M20K	SA1561CE-D	roll
KFC 150, KAP 150	SOCATA Model TB-20	SA1785CE-D	pitch

*NOTE: KFC 200 installations in Mooney Models M20J, S/N 24-1418 and earlier except S/N 24-1368, and M20K, S/N 25-0790 and earlier except S/N 25-0740, airplanes (STCs SA1212CE and SA1464CE) are not affected by this AD.

Compliance: Required as indicated unless already accomplished.

To prevent loss of primary pitch and/or roll control, accomplish the following:

(a) Within the next 5 hours time-in-service or within the next 10 calendar days after the effective date of this AD, whichever occurs first, modify the affected servo actuator(s) to provide for safetying of the cable guard attaching hardware in accordance with King Radio Alert Service Bulletin KS 177/178-3 dated December 4, 1985, as supplemented. (These servos are used on all affected KFC 150, KAP 150, and KAP 100, as well as some KFC 200 ((see NOTE above)) installations.)

(b) Aircraft may be flown in accordance with Federal Aviation Regulation (FAR) 21.197 to a location where this AD can be accomplished.

(c) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to King Radio Corporation, 400 North Rogers Road, Olathe, Kansas 66062, or

the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective January 27, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 85-25-02, issued December 11, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Ralph W. Rissmiller, Jr., Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

CESSNA
Airworthiness Directive
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85-25-10 CESSNA AIRCRAFT COMPANY: Amendment 39-5224. Applies to Cessna Model S550 and 552 airplanes, with unit numbers identified below, certificated in any category.

MODEL	UNIT NUMBERS
S550	0001 thru 0048, 0051 thru 0075, 0077, and 0079
552	-0001 thru -0015

Compliance is required as indicated, unless already accomplished.

To prevent hazardous accumulation of ice on the wing leading edge and horizontal stabilizer during flight in icing conditions, accomplish the following:

A. Prior to further flight:

1. Fabricate and install on the instrument panel, in clear view of the pilot, the following placard, using letters of a minimum of 0.10 inch in height: "FLIGHT INTO KNOWN OR FORECAST ICING PROHIBITED," and operate the airplane accordingly.

2. Revise the Airplane Flight Manual, Section II, Operating Limitations - Operations Authorized to read: "This airplane is approved for day and night, VFR, IFR flight. Flight into known or forecast icing conditions prohibited." This may be accomplished by inserting a copy of this AD in the Airplane Flight Manual.

B. Within the next 15 flight hours or 15 days after the effective date of this AD, whichever occurs first, inspect and modify, as necessary, the fluid ice protection system left and right inboard wing installation in accordance with Accomplishment Instruction A. of Cessna Alert Service Letter SLAS550-30-05, dated December 17, 1985.

C. Within the next 25 flight hours or 30 days after the effective date of this AD, whichever occurs first, inspect and modify, as necessary, the fluid ice protection system left and right outboard wing and horizontal stabilizer installations in accordance with Accomplishment Instructions B. and C. of Cessna Alert Service Letter SLAS550-30-05, dated December 17, 1985.

D. Within 5 days after the required inspection, report any defects found to the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

E. The requirements of paragraphs A.1. and A.2., above, may be accomplished by the holder of a pilot certificate issued

under Part 61 of the Federal Aviation Regulations (FAR) on any airplanes owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

F. The requirements of paragraphs A.1. and A.2., above, are terminated upon the accomplishment of paragraphs B. and C. of this AD.

G. Airplanes may be flown in accordance with FAR 21 197 and 21.199 to a location where the inspection/modification requirements of the AD can be accomplished.

H. Alternate means of compliance with this AD which provides an acceptable level of safety may be used if approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Cessna Aircraft Company, P.O. Box 7704, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, FAA, Central Region, 1803 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

This amendment becomes effective February 11, 1986, as to all persons, except those persons to whom it was made immediately effective by priority letter AD 85-25-10, issued December 17, 1985.

FOR FURTHER INFORMATION CONTACT:

Ralph W. Rissmiller, Jr., Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

CESSNA
Airworthiness Directive
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85-25-11 CESSNA: Amendment 39-5234. Applies to Models 425 (Serial Numbers 425-0002 thru 425-0236) and 441 (Serial Numbers 441-0001 thru 441-0354) airplanes certificated in any category.

Compliance: Required within the next ten hours time-in-service, unless previously accomplished.

To preclude failure of the horizontal stabilizer front spar attachments accomplish the following:

(a) Replace left and right horizontal stabilizer front spar attach bolt retaining nuts (Part Number NAS1291-8) in accordance with the instructions contained in Cessna Service Bulletin No. CQB85-25, Revision 1, dated December 16, 1985. Purchase replacement NAS1291-8 nuts exclusively from the Cessna Supply Division after November 22, 1985, per the above Cessna Service Bulletin.

(b) Return removed NAS1291-8 nuts to Cessna in accordance with Cessna Service Bulletin No. CQB85-25, Revision 1, dated December 16, 1985.

(c) Aircraft may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(d) An equivalent method of compliance with this AD may be used when approved by the Manager, Wichita Aircraft Certification Office, Federal Aviation Administration, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the document referred to herein upon request to the Cessna Aircraft Company, Customer Services, Post Office Box 1521, Wichita, Kansas 67201 or the FAA. Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective February 12, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 85-25-11, issued December 18, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Lawrence S. Abbott, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4409.

MESSERSCHMITT-BOLKOW-BLOHM
Airworthiness Directive
Final Copy of Letter
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85-26-02 MESSERSCHMITT-BOLKOW-BLOHM: Amendment 39-5226. Applies to Model BO-105 series helicopters, through serial No. 750, certificated in any category that are equipped with one of the following tandem hydraulic units: Part Numbers (P/N) 105-45021, 105-45023, 105-45028, 105-83001, 105-83011, D133-3073, and DSK1-30142.

Compliance is required as indicated, unless previously accomplished.

To detect or prevent possible jamming of the helicopter main rotor control system, accomplish the following:

(a) Before the first flight of each day after the effective date of this AD, operate the System II hydraulic actuators to detect binding of the control. If binding is detected, clean and seal the System II hydraulic actuators in accordance with paragraph (b) of this AD.

(b) Within the next 10 hours time in service after the effective date of this AD, clean and seal the System II hydraulic actuators in accordance with MBB BO-105, ASB No. 26, Part 2B, dated December 12, 1985, or with an equivalent approved in accordance with paragraph D of this AD. After sealing, the operational check in paragraph (a) is no longer required.

(c) The operational check in paragraph (a) may be performed by the pilot.

NOTE: For the requirements regarding recording compliance and method of compliance with this AD in the aircraft's permanent maintenance records, see FAR Section 91.173.

(d) Upon request, an equivalent means of compliance with this AD may be used when approved by the Manager, Aircraft Certification Office, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium, APO NY 09667-1011.

(e) The aircraft may be flown in accordance with FAR Sections 21.197 and 21.199 to a base where the actuators may be sealed in accordance with paragraph (b) of this AD.

The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to MBB Helicopter Corp., P.O. Box 2349, West Chester, Pennsylvania 19380. These documents may also be examined at the Office of the Regional Counsel, Federal Aviation Administration, Southwest Region, Room 158, Building 3B, 4400 Blue Mound Road, Fort Worth, Texas 76106.

This amendment becomes effective February 25, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 85-26-02, issued December 23, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

J. H. Major, Helicopter Policy and Procedures Staff, ASW-111, Aircraft Certification Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone number (817) 877-2549.

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READEX FICHE best copy available

86-04-02 GARRETT TURBINE ENGINE COMPANY: Letter issued February 14, 1986. Pursuant to the authority of the Federal Aviation Act of 1958, delegated to me by the Administrator, this priority letter AD is issued and made applicable to Garrett Turbine Engine Company Model TFE731-2, -3 and -3R turbofan engines.

Compliance required as indicated unless already accomplished.

To prevent failure of the fan rotor discs, Garrett Part Numbers 3073436-1/-2/-3 and 3072162-1/-2/-3, accomplish the following:

(A) For fan rotor discs with 4000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service before reaching 4100 total operating cycles.

(B) For fan rotor discs with more than 4000 but with 6000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service within the next 100 operating cycles or prior to reaching 6005 total operating cycles whichever occurs first.

(C) For fan rotor discs with more than 6000 but with 8000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service within the next 5 operating cycles or prior to reaching 8001 total operating cycles whichever occurs first.

(D) For fan rotor discs with more than 8000 operating cycles on the effective date of this AD, remove fan rotor disc from service prior to further flight.

(E) An operating cycle is considered as any engine operating sequence involving an engine start, at least one acceleration to 80 percent or more low pressure rotor speed and engine shutdown. An alternate method of determining cycles is to consider each airplane landing as one cycle. Fan rotor discs which have had their cyclic lives calculated by any other method are to have their cyclic lives recalculated using one of the two methods specified above.

NOTE: Fan rotor discs may be returned to GTEC for evaluation. Shipping information is contained in Garrett Alert Service Bulletin No. TFE731-A72-3328 Revision 1 dated February 17, 1986.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR's) 21.197 and 21.199 to a base where the AD can be accomplished. Upon request, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, Western Aircraft Certificatior Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Propulsion Section, Aerospace Engineer, ANM-174W, Northwest Mountain Region, Western Aircraft Certification Office, Federal Aviation Administration, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007, telephone (213) 297-1382.

85-22-04 GATES LEARJET CORPORATION: Amendment 39-5161. Applies to the following Models and serial numbers:

MODEL	SERIAL NUMBER
24D, 24D-A, 24E, 24F, 24F-A	24-218, 24-230 thru 24-357
25, 25B, 25C, 25D, 25F	25-059, 25-061, 25-066 thru 25-373
28	28-001 thru 28-005
29	29-001 thru 29-004
35, 35A	35-001 thru 35-570, 35-589 thru 35-600
36, 36A	36-001 thru 36-053, 36-055

To prevent fire and explosion within the battery case, accomplish the following within the next 25 flight hours after the effective date of this AD, and thereafter at intervals not to exceed 200 flight hours:

A. Inspect the interior of the battery cases for evidence of fuel contamination. Fuel contamination will be evidenced by odor and oily residue. If evidence of contamination is found, before further flight, inspect the jiffy drains forward of the battery compartment to determine the source of contamination, replace any jiffy drain found to be defective, and remove all contamination from battery cases and vent system, in accordance with Gates Learjet Corporation Maintenance Instructions, as applicable.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the inspection requirements of this AD.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region.

All persons affected by this directive who have not already received the applicable service bulletins from the manufacturer, may obtain copies upon request to Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These

documents may be examined at FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, or at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington.

This amendment becomes effective November 12, 1985.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

83-24-11 R1 McCAULEY ACCESSORY DIVISION: Amendment 39-4768 as amended by Amendment 39-5240. Applies to certain McCauley Model 2A34C66/90AT-2, E2A34C73/90AT-8, and 2A36C23/84B-0 constant speed propellers with specific serial numbers listed in McCauley Service Bulletin No. 151A dated December 6, 1985, or FAA approved equivalent, installed on, but not limited to, Cessna 180, 180A through 180J, Cessna 188, 188A, and 188B, Cessna P206, P206A through P206E, Cessna 210E through 210L, and Beech 33, 35, and 36 series aircraft certificated in any category.

Compliance is required as indicated unless already accomplished.

To prevent propeller blade failure, accomplish the following:

1. For propellers with 400 or more hours time in service since new, disassemble the propeller and inspect the retention threads on the blades and ferrules in accordance with McCauley Service Bulletin 151A dated December 6, 1985, within the next 25 hours time in service or within the next 30 days after the effective date of this AD, whichever occurs earlier.

2. For propellers with less than 400 hours time in service since new, disassemble the propeller and inspect the retention threads on the blades and ferrules in accordance with McCauley Service Bulletin 151A dated December 6, 1985, prior to accumulating 425 hours time in service.

3. If no scratch(es) or unairworthy conditions are observed, the blade retention threads must be dye penetrant inspected to confirm visual observations, before return to service.

4. Blades showing evidence of scratch(es) within the first four outboard threads or other unairworthy condition(s) must be replaced with an airworthy blade. Blades showing evidence of scratch(es) from the fifth thread and inboard, must be repaired before returning blade to service. Ferrules showing evidence of sharp edges on the threads must be repaired and replated in accordance with McCauley Service Bulletin 151A dated December 6, 1985, before returning to service.

5. A special flight permit may be issued in accordance with Federal Aviation Regulations 21.197 to operate the aircraft to a base where the AD can be accomplished.

Upon request of the operator, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

McCauley Service Bulletin No. 151A dated December 6, 1985, identified and described in this directive, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to McCauley Accessory Division, Cessna Aircraft Company, 3535 McCauley Drive, P.O. Box 430, Vandalia, Ohio 45377. This document also may be examined at the Office of the Regional Counsel, FAA, Attn: Rules Docket No. 83-ANE-27, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

Amendment 39-4768 became effective December 23, 1983.
This Amendment 39-5240 becomes effective on March 12, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert Alpiser, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone 312-694-7130.

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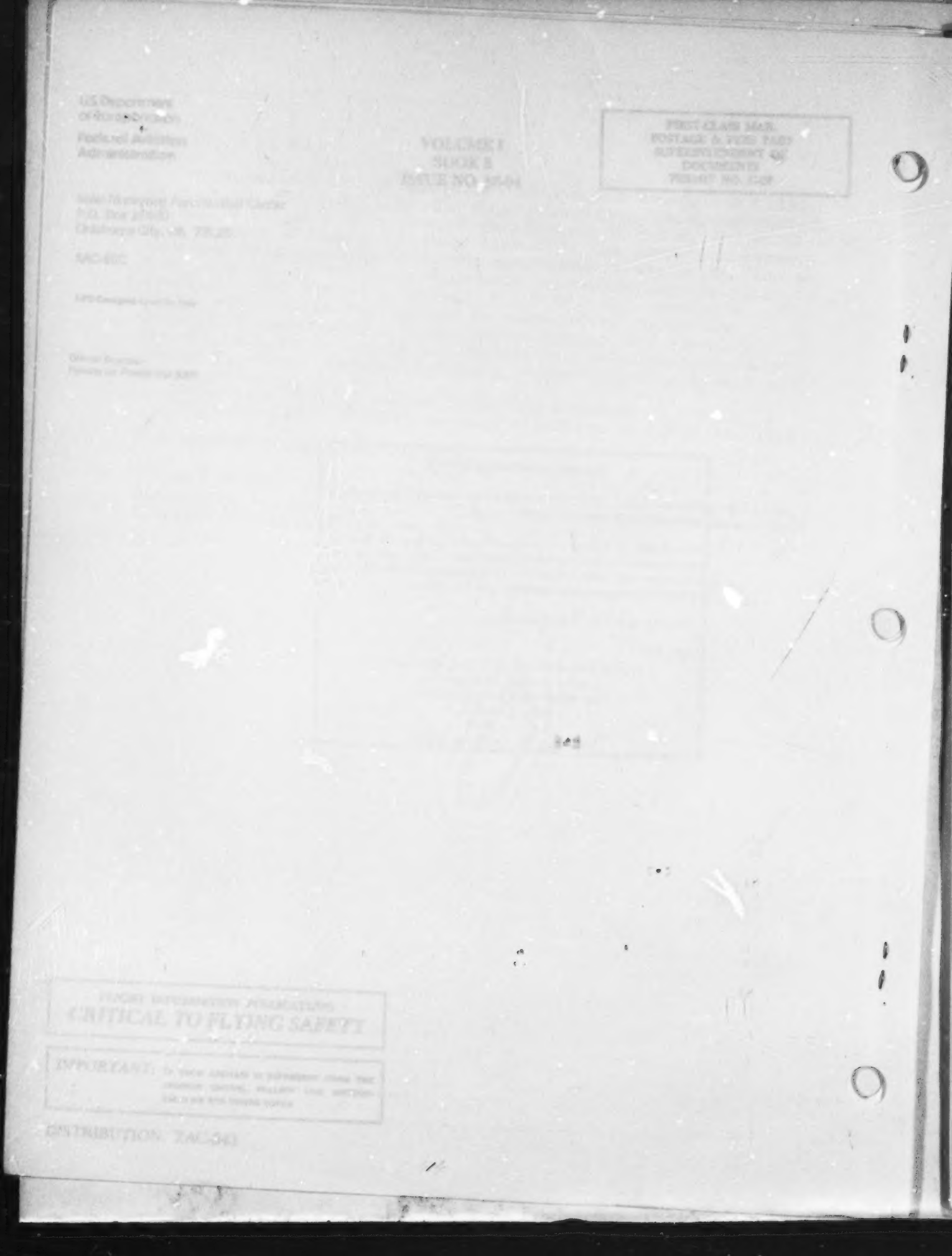

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86-05-02 UNITED INSTRUMENTS, INC.: Letter issued February 28, 1986. Applies to altimeter Part Numbers 5934, 5934A, 5934M, 5934AM, 5934P, 5934PA, 5934PM, 5934PAM, 5934D, 5934PD, 5934AD, and 5934PAD with the following serial numbers:

6C461 thru 6C999
7C000 thru 7C999
8C000 thru 8C999
9C000 thru 9C999
0D000 thru 0D999
1D000 thru 1D999
2D000 thru 2D869

NOTE 1: This AD is applicable to pressure sensitive altimeters that do not have encoding capabilities. The affected altimeters were manufactured after February 1, 1985.

Compliance: Required as indicated unless already accomplished.

To prevent possible erroneous altitude information from being displayed to the pilot, accomplish the following:

(a) For all altimeters that are installed in an aircraft, prior to further flight,

(1) Check each installed altimeter or check the aircraft's permanent maintenance record to determine if the altimeter falls within the Serial Number designations set forth in this AD. The owner/operator of the aircraft may make this check.

(2) If, as a result of this check, it is determined that the altimeter falls within these designations, check the altimeter by applying a slight outward pull on the adjustment knob while turning the knob and determine that the altitude indication pointers and the barometric pressure dial remain synchronized.

(3) The holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) may conduct this check on any airplane owned or operated by him. The person accomplishing this must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(4) If the altitude pointers do not move simultaneously with the barometric dial, prior to further flight remove the altimeter and return it to United Instruments, Inc., 3625 Comotara Avenue, Wichita, Kansas 67226, no later than July 1, 1986. Replacement altimeters must be serviceable units.

NOTE 2: It is recommended but not required by this AD, that the above check for synchronized movement be accomplished each time the altimeter barometric pressure dial is adjusted.

(b) Regardless of the results of the check specified in paragraph (a) of this AD, on or before July 1, 1986, for all affected altimeters installed in an aircraft, remove the altimeter and return it to United Instruments, Inc. at the above address. Replacement altimeters must be serviceable units.

(c) For all affected altimeters not installed in an aircraft, prior to further use but no later than July 1, 1986, return the altimeter to United Instruments, Inc., at the above address, for examination and modification as required.

(d) For each altimeter returned to United Instruments, Inc. per the instructions of paragraphs (a), (b) and (c) above, the examination and rework by United Instruments, Inc. will be identified by a yellow dot approximately 1/4 inch (6.4mm) diameter on the lower half of the rear case and the letter "M", approximately 1/8 inch (3.2mm) in height stamped on the data plate just before the word "altimeter". Units that have been reworked and so marked may be used as serviceable replacement parts.

(e) Aircraft may be flown in accordance with Federal Aviation Regulation (FAR) 21.197 to a location where this AD can be accomplished. Prior to dispatch, set the altimeter to field elevation and do not reset in flight.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209.

United Instruments Service Bulletin No. 2, dated February 24, 1986, pertains to the subject of this AD.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

86-05-05 GATES LEARJET CORPORATION: Amendment 39-5248. Applies to the following Gates Learjet models and serial numbers:

MODELS	SERIAL NUMBERS
24D, 24D-A, 24E, 24F, 24F-A	218; 230 thru 357
25, 25B, 25C, 25D, 25F	059; 061; 066 thru 373
28	001 thru 005
29	001 thru 004
35, 35A	001 thru 570; 589 thru 600
36, 36A	001 thru 053; 055

Compliance as indicated in the body of the AD.

To eliminate the potential for a fire and explosion within the battery, caused by leaking fuel entering the battery vent, accomplish the following within the next 200 flight hours, unless already accomplished:

A. Relocate the battery inlet vent in accordance with instructions contained in Gates Learjet Corporation Service Bulletin (SB) 24/25-334A (for Models 24 and 25 series airplanes), SB 28/29-24-5A (for Models 28 and 29 series airplanes), or SB 35/36-24-10 (for Models 25 and 26 series airplanes), dated July 18, 1985, or later FAA-approved revisions.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the modification requirements of this AD.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office,

1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

This amendment supersedes Amendment 39-5161 (50 FR 43565; October 28, 1985), AD 85-22-04.

This amendment becomes effective April 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4419.

86-05-12 HARTZELL: Letter issued March 7, 1986. Pursuant to the authority of the Federal Aviation Act of 1958 delegated to me by the Administrator, this AD is issued and made applicable to Hartzell Model HC-B3TN-5( )/T10282( ) propellers installed on Fairchild Model SA226-TC aircraft modified by Garrett STC SA344GL or Par Air STC SA4872SW with TPE331-10UA engines.

Compliance required prior to accumulating 1,000 hours time in service since new or 300 hours time in service since overhaul, or within 30 days after receipt of this letter, whichever occurs later, unless already accomplished.

To prevent propeller blade separation near the hub which could result in engine separation from the aircraft, accomplish the following:

(a) Remove propeller from aircraft.

(b) Accomplish the following in accordance with Hartzell Service Bulletin No. 136C dated March 3, 1986, or FAA approved equivalent:

(1) Disassemble propeller and visually inspect the blade pilot tube bore area. Particular attention shall be made to area between the inner needle bearing assembly and bearing spacer.

(2) Remove all evidence of scratches, tool marks, corrosion, etc. in the blade pilot tube bore area. Do not exceed the maximum rework limitations defined in the service bulletin.

(3) Etch the blade pilot tube bore area prior to penetrant inspection. Ensure removal of all etching solution.

(4) Penetrant inspect the blade pilot tube bore area.

(5) Coat the blade pilot tube bore area with alodine.

(6) Install bearing spacer and inner needle bearing assembly. Pilot tube bore must be lubricated to facilitate bearing installation.

(c) Replace, prior to further flight, all blades showing evidence of cracks or other unairworthy conditions with airworthy blades.

(d) Place the following WARNING in the Limitation Section of the FAA approved airplane flight manual supplement: "The TPE331-10UA engine is capable of developing in excess of the maximum allowable torque approved for this installation. Use of torque in excess of the maximum approved limits may cause propeller failure."

NOTES:

(1) Propeller blades with serial numbers subsequent to F74359 have had the intent of this AD incorporated during manufacture and are not affected by this AD.

(2) This AD does not apply to propellers installed on TPE331-3 engines unless the propellers were previously installed on TPE331-10UA engines for at least 1000 hours time in service since new or at least 300 hours time in service since overhaul.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR) 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Documents pertinent to this AD may be obtained from Hartzell Propeller Products Division, TRW Aircraft Components Group, 350 Washington Ave., Piqua, Ohio 45356, or may be examined at the Office of Regional Counsel, FAA, Attn: Rules Docket No. 86-ANE-9, 12 New England Executive Park, Burlington, Massachusetts 01303. Federal Register publication of this directive to follow.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Robert Alpiser, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone (312) 694-7130.

CESSNA
Airworthiness Directive
Final Copy of Letter
Volume I

86-01-02 CESSNA: Amendment 39-5237. Applicable to Model S550 airplanes, Serial Numbers S550-0001 through S550-0079, certificated in any category. Compliance is required as indicated, unless already accomplished.

To prevent failure of the cotter pins securing the left and right main landing gear torque link connections, accomplish the following:

A. Incorporate the following into the Limitations Section of the FAA-approved Airplane Flight Manual (AFM). This may be accomplished by including a copy of this AD in the AFM.

"Prior to each flight, verify that the cotter pins securing the left and right main landing gear torque link connections are installed. If either cotter pin is broken or missing, prior to further flight, accomplish the repair procedure referenced in Cessna Alert Service Letter S550-32-03, dated December 20, 1985."

B. Within the next 30 days or 20 hours time-in-service after the effective date of this AD, whichever occurs first, inspect and repair, if necessary, the left and right main landing gear torque link connections, in accordance with Cessna Alert Service Letter S550-32-03, dated December 20, 1985. Compliance with the requirements of this paragraph constitutes terminating action for the requirements of paragraph A., above.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the inspection requirements of this AD.

All persons affected by this directive may obtain copies of Cessna Alert Service Letter S550-32-03 upon request to the Citation Marketing Division, Cessna Aircraft Company, P.O. Box 7706, Wichita, Kansas 67277. This material may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at FAA, Central Region, Wichita Aircraft Certification Office, Room 100, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas.

This amendment becomes effective March 7, 1986, as to all persons, except those persons to whom it was made immediately effective by priority letter AD 86-01-02, dated January 6, 1986.

FOR FURTHER INFORMATION CONTACT:

Douglas W. Haig, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4409.

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BOEING
Airworthiness Directive
Volume II

86-05-01 BOEING: Amendment 39-5246. Applies to all Model 747 series airplanes equipped with Rolls Royce engines, certificated in any category, listed in Boeing Alert Service Bulletin 747-71A2216, dated December 20, 1985.

To detect faulty self-locking nuts that could lead to separation of an engine, accomplish the following, unless already accomplished:

A. Within 30 days after the effective date of this AD, perform a one-time inspection of the forward engine mount nuts for adequate self-locking torque, in accordance with Boeing Alert Service Bulletin 747-71A2216, dated December 20, 1985, or later FAA-approved revisions.

B. Defective nuts must be replaced prior to further flight.

C. Upon the request of an operator, an FAA Principal Maintenance Inspector, subject to prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection time in this AD to permit compliance at an established inspection period of that operator, if the request contains substantiating data to justify the change for that operator.

D. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this proposal who have not already received information on inspection procedures from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective March 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-05-02 UNITED INSTRUMENTS, INC.: Letter issued February 28, 1986. Applies to altimeter Part Numbers 5934, 5934A, 5934M, 5934AM, 5934P, 5934PA, 5934PM, 5934PAM, 5934D, 5934PD, 5934AD, and 5934PAD with the following serial numbers:

6C461 thru 6C999
7C000 thru 7C999
8C000 thru 8C999
9C000 thru 9C999
0D000 thru 0D999
1D000 thru 1D999
2D000 thru 2D869

NOTE 1: This AD is applicable to pressure sensitive altimeters that do not have encoding capabilities. The affected altimeters were manufactured after February 1, 1985.

Compliance: Required as indicated unless already accomplished.

To prevent possible erroneous altitude information from being displayed to the pilot, accomplish the following:

(a) For all altimeters that are installed in an aircraft, prior to further flight,

(1) Check each installed altimeter or check the aircraft's permanent maintenance record to determine if the altimeter falls within the Serial Number designations set forth in this AD. The owner/operator of the aircraft may make this check.

(2) If, as a result of this check, it is determined that the altimeter falls within these designations, check the altimeter by applying a slight outward pull on the adjustment knob while turning the knob and determine that the altitude indication pointers and the barometric pressure dial remain synchronized.

(3) The holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) may conduct this check on any airplane owned or operated by him. The person accomplishing this must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(4) If the altitude pointers do not move simultaneously with the barometric dial, prior to further flight remove the altimeter and return it to United Instruments, Inc., 3625 Comotara Avenue, Wichita, Kansas 67226, no later than July 1, 1986. Replacement altimeters must be serviceable units.

NOTE 2: It is recommended but not required by this AD, that the above check for synchronized movement be accomplished each time the altimeter barometric pressure dial is adjusted.

(b) Regardless of the results of the check specified in paragraph (a) of this AD, on or before July 1, 1986, for all affected altimeters installed in an aircraft, remove the altimeter and return it to United Instruments, Inc. at the above address. Replacement altimeters must be serviceable units.

(c) For all affected altimeters not installed in an aircraft, prior to further use but no later than July 1, 1986, return the altimeter to United Instruments, Inc., at the above address, for examination and modification as required.

(d) For each altimeter returned to United Instruments, Inc. per the instructions of paragraphs (a), (b) and (c) above, the examination and rework by United Instruments, Inc. will be identified by a yellow dot approximately 1/4 inch (6.4mm) diameter on the lower half of the rear case and the letter "M", approximately 1/8 inch (3.2mm) in height stamped on the data plate just before the word "altimeter". Units that have been reworked and so marked may be used as serviceable replacement parts.

(e) Aircraft may be flown in accordance with Federal Aviation Regulation (FAR) 21.197 to a location where this AD can be accomplished. Prior to dispatch, set the altimeter to field elevation and do not reset in flight.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209.

United Instruments Service Bulletin No. 2, dated February 24, 1986, pertains to the subject of this AD.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

86-05-03 DeHAVILLAND AIRCRAFT OF CANADA, LTD.: Amendment 39-5247. Applies to Model DHC-8-101 airplanes, serial numbers 1 through 24, certificated in any category. To assure structural integrity of the elevator and spring tab, accomplish the following within the next 200 flight hours or 30 days after the effective date of this AD, whichever comes first, unless already accomplished:

A. For airplanes, serial numbers 1 through 14, accomplish Modification No. 8/0478 to the elevator mass balance weights as described in deHavilland Aircraft of Canada, Ltd., Service Bulletin No. A8-55-4, dated January 15, 1986.

B. For airplanes, serial numbers 15 through 24, the limitation imposed by telegraphic AD T85-26-52, issued January 3, 1986, may be removed from the Airplane Flight Manual when Modification No. 8/0468 to the spring tab and elevator mass balance weights, as described in deHavilland Aircraft of Canada, Ltd., Service Bulletin No. A8-55-3, dated January 3, 1986, has been incorporated.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to deHavilland Aircraft of Canada, Ltd., Garrett Boulevard, Downsview, Ontario M3K 1Y5, Canada. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This supersedes telegraphic AD T85-26-52, dated January 3, 1986.

This amendment becomes effective March 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Mark E. Baldwin, Standardization Branch, ANM-113, FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168, telephone (206) 431-2978; or Mr. Vito Pulera, Airframe Branch, ANE-172, FAA, New England Region, New York Aircraft Certification Office, 181 S. Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone (516) 791-6220.

86-05-04 BOEING: Amendment 39-5249. Applies to Model 737-100, -200, and -300 airplanes, as specified in Boeing Service Bulletin 737-25A1182, Revision 2, dated November 12, 1985, certificated in any category. To correct aft door emergency opening characteristics, accomplish the following within 6 months after the effective date of this amendment, unless previously accomplished:

A. Install escape slide cover restraining straps in accordance with Boeing Service Bulletin 737-25A1182, Revision 2, Part II, dated November 12, 1985, or later FAA-approved revisions.

NOTE: Installation of escape slide cover restraining straps in accordance with Boeing Service Bulletin 737-25A1182, Revision 1, dated September 24, 1985, is equivalent to such installation in accordance with Revision 2 of that service bulletin, and constitutes compliance with this paragraph.

B. An alternate means of compliance which provides an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this amendment who have not already received the appropriate service bulletin from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This service bulletin may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Jeff Gardlin, Airframe Branch, ANM-120S; telephone (206) 431-2932. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

GATES LEARJET
Airworthiness Directive
Volume II

86-05-05 GATES LEARJET CORPORATION: Amendment 39-5248. Applies to the following Gates Learjet models and serial numbers:

MODELS	SERIAL NUMBERS
24D, 24D-A, 24E, 24F, 24F-A	218; 230 thru 357
25, 25B, 25C, 25D, 25F	059; 061; 066 thru 373
28	001 thru 005
29	001 thru 004
35, 35A	001 thru 570; 589 thru 600
36, 36A	001 thru 053; 055

Compliance as indicated in the body of the AD.

To eliminate the potential for a fire and explosion within the battery, caused by leaking fuel entering the battery vent, accomplish the following within the next 200 flight hours, unless already accomplished:

A. Relocate the battery inlet vent in accordance with instructions contained in Gates Learjet Corporation Service Bulletin (SB) 24/25-334A (for Models 24 and 25 series airplanes), SB 28/29-24-5A (for Models 28 and 29 series airplanes), or SB 35/36-24-10 (for Models 25 and 26 series airplanes), dated July 18, 1985, or later FAA-approved revisions.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the modification requirements of this AD.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office,

1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

This amendment supersedes Amendment 39-5161 (50 FR 43565; October 28, 1985), AD 85-22-04.

This amendment becomes effective April 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4419.

86-05-06 BOEING: Amendment 39-5244. Applies to all Model 757-200 series airplanes listed in Boeing Service Bulletin 757-27-0057, Revision 1, dated October 17, 1985, certificated in any category.

To eliminate the possibility of the elevator forward override mechanism becoming jammed, accomplish the following, unless already accomplished:

A. Within the next 60 days after the effective date of this AD, remove and replace the elevator control forward override assembly cam with a revised cam in accordance with Boeing Service Bulletin 757-27-0057, Revision 1, dated October 17, 1985, or later FAA-approved revision.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the modifications required by this AD.

All persons affected by this proposal who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Stanton Wood, Airframe Branch, ANM-120S; telephone (206) 431-2924. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-05-07 BOEING: Amendment 39-5250. Applies to all Boeing Model 727 series airplanes, certificated in any category. To assure the integrity of the forward lavatory drain system, accomplish the following, unless already accomplished:

A. For airplanes with Monogram lavatory systems, within 90 days after the effective date of this AD:

(1) Determine, by inspection if necessary, whether the modification described in Monogram Service Letter 16000-SL-01, dated October 3, 1979, has been incorporated in the forward lavatory.

(2) If the modification has been accomplished, perform a leak check of the forward lavatory drain system (both flush valve and drain valve). The drain valve leak check must be performed with the airplane pressurized to a minimum of 3 psi differential.

(3) If the modification has not been accomplished, perform a leak check of the forward lavatory drain system (both flush valve and drain valve). The drain valve leak check must be performed with the airplane pressurized to a minimum of 3 psi differential. Repeat the check of the in-tank flush valve at intervals not to exceed 60 days. For these flush valve leak checks, the airplane does not need to be pressurized. Once the modification described in Monogram Service Letter 16000-SL-01, dated October 3, 1971, has been accomplished, the unpressurized flush valve leak checks (required at intervals not to exceed 60 days) may be discontinued.

B. For all airplanes with Monogram lavatory systems, repeat the leak check of the forward lavatory drain system (both valves) at intervals not to exceed 15 months following the initial leak check called out in paragraph A.(2) or A.(3) of this AD. The drain valve leak check must be performed with the airplane pressurized to a minimum of 3 psi differential.

C. For airplanes with other than Monogram lavatory systems, within 90 days after the effective date of this AD, perform a leak check of the forward lavatory drain system (both valves). The drain valve leak check must be performed with the airplane pressurized to a minimum of 3 psi differential. Repeat these leak checks at intervals not to exceed 15 months.

D. If leaks are discovered during any leak check, either repair the leak before further flight, or drain the lavatory system and placard the lavatory inoperative until repairs can be accomplished.

E. Installation of a new drain valve incorporating an inner integral door with a second positive seal, when the valve and installation service information are approved by the

Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, shall constitute terminating action for the periodic leak checks required by paragraph B. and C. of this AD.

F. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

G. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the above specified service letter from the manufacturer may obtain copies upon request from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. It may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert McCracken, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, Seattle Aircraft Certification Office; telephone (206) 431-2947. Mailing address: FAA, Seattle Aircraft Certification Office, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-05-08 FOKKER B.V.: Amendment 39-5243. Applies to Model F28 airplanes, certificated in any category.

Serial Numbers: 11003 to 11189 inclusive
11190 to 11192 inclusive (RH side only)
11991 and 11992

To prevent failures of the wing center section, accomplish the following, unless already accomplished, within the next 60 days after the effective date of this AD, or before the airplane reaches six years of age (from date of delivery), whichever occurs later:

A. Inspect the center wing rear spar end fittings, and repair if cracks are found, in accordance with Fokker Service Bulletin F28/57-73, dated June 18, 1984.

B. Repeat the inspection and repairs required by paragraph A., above, at intervals not to exceed one year.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Manager, Maintenance and Engineering, Fokker B.V., Product Support, P.O. Box 7600, 11172J Schiphol Cost, The Netherlands. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 7, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Mark E. Baldwin, Standardization Branch, ANM-113; telephone (206) 431-2978. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-05-09 FAIRCHILD: Amendment 39-5252. Applies to all Model F27 and FH227 series airplanes certificated in any category. Compliance required as indicated.

To detect cracks in the FH227 and F27 main landing gear drag strut assemblies due to the bores of some tubes having surface break-up generated during the drawing process, accomplish the following, unless previously accomplished:

A. For airplanes which have accumulated 20,000 landings or more prior to the effective date of this AD, within 400 hours time-in-service after the effective date of this AD, using eddy current or ultrasonic inspection equipment and procedures, inspect the left and right upper main undercarriage drag stay for flaws, in accordance with the Accomplishment Instructions and sketches outlined in Dowty Rotol Service Bulletin 32-45N (for Model FH227 airplanes) or Service Bulletin 32-81C (for Model F27 airplanes), dated October 16, 1981.

B. For airplanes which have accumulated more than 10,000 landings but less than 20,000 landings prior to the effective date of this AD, within 800 hours time-in-service after the effective date of this AD, using eddy current or ultrasonic inspection equipment and procedures, inspect the left and right upper main undercarriage drag stay for flaws in accordance with the Accomplishment Instructions and sketches outlined in Dowty Rotol Service Bulletin 32-45N (for Model FH227 airplanes) or Service Bulletin 32-81C (for Model F27 airplanes), dated October 16, 1981.

C. Within 2,000 hours time-in-service after the effective date of this AD, visually inspect the left and right upper main undercarriage stay in accordance with Dowty Rotol Service Bulletin 32-45N (for Model FH227 airplanes) or Service Bulletin 32-81C (for Model F27 airplanes), Item 2B(1)(2)(3)(4), dated October 16, 1981.

D. If, as a result of the inspections referred to in paragraphs A. and B., above, flaws are detected, replace damaged part with a serviceable part prior to next flight.

E. Upon the request of an operator, an FAA Maintenance Inspector, subject to prior approval by the Manager, New York Aircraft Certification Office, FAA, New England Region, may adjust the inspection times specified in this AD to permit compliance at an established inspection period of that operator if the request contains substantiating data to justify the change for that operator.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the inspection requirements of this AD.

G. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

All persons affected by this proposal who have not already received these documents from the manufacturer may obtain copies upon request to Fairchild Industries, Inc., Fairchild Republic Division, Hagerstown, Maryland 21740. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at the FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York.

This amendment becomes effective April 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Alfred A. Maila, ANE-172, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6221.

86-05-10 MCDONNELL DOUGLAS: Amendment 39-5256. Applies to McDonnell Douglas Model DC-10-10, -10F, -15, -30, -30F, -40, and KC-10A (Military) series airplanes, certificated in any category, equipped with anti-skid valve assemblies, Goodyear Aerospace Corporation Part Numbers 6000189, 6000189-2, and 6000189-3, having serial number dates of JUL81-8519 through serial numbers dated April 1985, or any valves overhauled during January 1981 through April 1985 having end cap screws replaced with screws obtained from Goodyear Aerospace Corporation. Compliance required as indicated, unless previously accomplished.

To preclude the potential of hydraulic system fluid loss with subsequent loss of braking system performance on anti-skid valve assemblies, accomplish the following:

A. Within 12 months after the effective date of this airworthiness directive (AD), modify and reidentify the anti-skid valve assemblies as outlined in the Accomplishment Instructions of Goodyear Service Bulletin DC10-10-32-29 and DC10-30/40-32-41, dated May 3, 1985, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

NOTE: Removal and installation of skid control manifold or skid control valve may be accomplished as outlined in McDonnell Douglas Service Bulletin 32-209, dated June 27, 1985.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this proposal who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-750 (54-60); or Goodyear Aerospace Corporation, 1210 Massillon Road, Akron, Ohio 44315. These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective April 21, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Gilbert L. Thompson, Aerospace Engineer, Systems & Equipment Branch, ANM-130L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 548-2831.

86-05-11 BOEING: Amendment 39-5255. Applies to all Model 747 series airplanes, certificated in any category, listed in Boeing Alert Service Bulletin 747-57A2233, Revision 1, dated January 24, 1986.

To detect faulty self-locking nuts that could lead to separation of an engine, accomplish the following, unless already accomplished:

A. Within 100 landings after the effective date of this AD, perform a one-time inspection of the outboard attach fitting nuts of all nacelle struts for adequate self-locking torque of the nuts, part number BACN10HR162, in accordance with Boeing Alert Service Bulletin 747-57A2233, Revision 1, dated January 24, 1986, or later FAA-approved revisions.

B. Within 600 landings after the effective date of this AD, perform a one-time inspection of the inboard attach fitting nuts of all nacelle struts for adequate self-locking torque of the nuts, part number BACN10HR162, in accordance with Boeing Alert Service Bulletin 747-57A2233, Revision 1, dated January 24, 1986, or later FAA-approved revisions.

C. Defective nuts must be replaced prior to further flight.

D. Upon the request of an operator, an FAA Principal Maintenance Inspector, subject to prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection time in this AD to permit compliance at an established inspection period of that operator, if the request contains substantiating data to justify the change for that operator.

E. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this proposal who have not already received information on inspection procedures from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective March 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-05-12 HARTZELL: Letter issued March 7, 1986. Pursuant to the authority of the Federal Aviation Act of 1958 delegated to me by the Administrator, this AD is issued and made applicable to Hartzell Model HC-B3TN-5( )/T10282( ) propellers installed on Fairchild Model SA226-TC aircraft modified by Garrett STC SA344GL or Par Air STC SA4872SW with TPE331-10UA engines.

Compliance required prior to accumulating 1,000 hours time in service since new or 300 hours time in service since overhaul, or within 30 days after receipt of this letter, whichever occurs later, unless already accomplished.

To prevent propeller blade separation near the hub which could result in engine separation from the aircraft, accomplish the following:

(a) Remove propeller from aircraft.

(b) Accomplish the following in accordance with Hartzell Service Bulletin No. 136C dated March 3, 1986, or FAA approved equivalent:

(1) Disassemble propeller and visually inspect the blade pilot tube bore area. Particular attention shall be made to area between the inner needle bearing assembly and bearing spacer.

(2) Remove all evidence of scratches, tool marks, corrosion, etc. in the blade pilot tube bore area. Do not exceed the maximum rework limitations defined in the service bulletin.

(3) Etch the blade pilot tube bore area prior to penetrant inspection. Ensure removal of all etching solution.

(4) Penetrant inspect the blade pilot tube bore area.

(5) Coat the blade pilot tube bore area with alodine.

(6) Install bearing spacer and inner needle bearing assembly. Pilot tube bore must be lubricated to facilitate bearing installation.

(c) Replace, prior to further flight, all blades showing evidence of cracks or other unairworthy conditions with airworthy blades.

(d) Place the following WARNING in the Limitation Section of the FAA approved airplane flight manual supplement: "The TPE331-10UA engine is capable of developing in excess of the maximum allowable torque approved for this installation. Use of torque in excess of the maximum approved limits may cause propeller failure."

NOTES:

(1) Propeller blades with serial numbers subsequent to F74359 have had the intent of this AD incorporated during manufacture and are not affected by this AD.

(2) This AD does not apply to propellers installed on TPE331-3 engines unless the propellers were previously installed on TPE331-10UA engines for at least 1000 hours time in service since new or at least 300 hours time in service since overhaul.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR) 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Documents pertinent to this AD may be obtained from Hartzell Propeller Products Division, TRW Aircraft Components Group, 350 Washington Ave., Piqua, Ohio 45356, or may be examined at the Office of Regional Counsel, FAA, Attn: Rules Docket No. 86-ANE-9, 12 New England Executive Park, Burlington, Massachusetts 01803. Federal Register publication of this directive to follow.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Robert Alpiser, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone (312) 694-7130.

85-22-09 R1 SOCIETE NATIONALE INDUSTRIELLE AEROSPATIALE (SNIAS): Amendment 39-5254. Applies to SNIAS Model AS 332 C or CL helicopters fitted with engine stubframe Part Number (P/N) 332 A 58.00.12.00 and Model AS 332 L or L1 helicopters fitted with engine stubframe P/N 332 A 58.00.13.00, certificated in any category.

Compliance is required as indicated, unless already accomplished.

(a) Compliance required within 10 hours time in service after the effective date of this AD. To avoid operating conditions where ice ingestion into the engines may cause engine failure, permanently attach a placard, stencil, or decal to the instrument panel in full view of the flightcrew which includes the following limitations statement: ALL FLIGHT OPERATIONS BELOW PLUS 3 DEGREES CELSIUS IN THE PRESENCE OF ICE CRYSTALS, RAIN, MIST, DRIZZLE, DENSE CLOUDS, SNOW, OR SLEET ARE PROHIBITED.

(b) Modify and adjust the engine air inlets of applicable helicopters as specified below:

(1) Within 200 hours time in service after the effective date of this AD but not later than March 31, 1986, accomplish the engine air intake modifications prescribed by Aerospatiale Service Bulletin No. 53.62 (corresponds to Modification AMS 332 A 07.22.752).

(2) Within 400 hours time in service after the effective date of this AD but not later than March 31, 1986, accomplish the engine intake alignment inspections and adjustments prescribed by Aerospatiale Service Bulletin No. 71.07 (corresponds to Modification AMS 332 A 07.22.702).

(c) Upon accomplishment of the requirements of paragraph (b), the limitations placard, stencil, or decal required by paragraph (a) may be removed.

NOTE 1: This AD conforms in part to French AD 85-169-20(B), Revision 1, dated December 17, 1985.

NOTE 2: For the requirements regarding recording compliance and method of compliance with this AD in the aircraft's permanent maintenance records, see FAR Section 91.173.

(d) Upon request, an alternate means of compliance which provides an equivalent level of safety may be used when approved by the Manager, Aircraft Certification Office, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium, APO NY 09667, or by the Manager, Aircraft Certification Division, FAA, Southwest Region, ASW-100, P.O. Box 1689, Fort Worth, Texas 76101, telephone (817) 877-2581.

(e) The aircraft may be flown in accordance with FAR Sections 21.197 and 21.199 to a base where the requirements of paragraph (b) of this AD may be accomplished.

The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Aerospatiale Helicopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75051, ATTN: Customer Support. These documents may also be examined at the Office of the Regional Counsel, Federal Aviation Administration, Southwest Region, Room 158, Building 3B, 4400 Blue Mound Road, Fort Worth, Texas 76106.

Priority letter issued October 30, 1985, became effective upon receipt.

This Amendment 39-5254 becomes effective March 19, 1986.

FOR FURTHER INFORMATION CONTACT:

John Varoli, Manager, Aircraft Certification Office, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium, APO NY 09667, telephone number 513.38.30; or Wilbur F. Wells, Aircraft Certification Division, ASW-100, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone (817) 877-2551.

CESSNA
Airworthiness Directive
Final Copy of Letter
Volume II

86-01-02 CESSNA: Amendment 39-5237. Applicable to Model S550 airplanes, Serial Numbers S550-0001 through S550-0079, certificated in any category. Compliance is required as indicated, unless already accomplished.

To prevent failure of the cotter pins securing the left and right main landing gear torque link connections, accomplish the following:

A. Incorporate the following into the Limitations Section of the FAA-approved Airplane Flight Manual (AFM). This may be accomplished by including a copy of this AD in the AFM.

"Prior to each flight, verify that the cotter pins securing the left and right main landing gear torque link connections are installed. If either cotter pin is broken or missing, prior to further flight, accomplish the repair procedure referenced in Cessna Alert Service Letter S550-32-03, dated December 20, 1985."

B. Within the next 30 days or 20 hours time-in-service after the effective date of this AD, whichever occurs first, inspect and repair, if necessary, the left and right main landing gear torque link connections, in accordance with Cessna Alert Service Letter S550-32-03, dated December 20, 1985. Compliance with the requirements of this paragraph constitutes terminating action for the requirements of paragraph A., above.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the inspection requirements of this AD.

All persons affected by this directive may obtain copies of Cessna Alert Service Letter S550-32-03 upon request to the Citation Marketing Division, Cessna Aircraft Company, P.O. Box 7706, Wichita, Kansas 67277. This material may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at FAA, Central Region, Wichita Aircraft Certification Office, Room 100, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas.

This amendment becomes effective March 7, 1986, as to all persons, except those persons to whom it was made immediately effective by priority letter AD 86-01-02, dated January 6, 1986.

FOR FURTHER INFORMATION CONTACT:

Douglas W. Haig, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4409.

BOEING
Airworthiness Directive
Correction
Volume II

85-11-52 R1 BOEING: Amendment 39-5105. Applies to Model 737-300 series airplanes equipped with Plessey Type 8240 Mark 1, 2, or 3 fuel boost pumps or TRW 10-60533-1 fuel boost pumps, certificated in any category.

To prevent engine flameouts during climb, accomplish the following, unless already accomplished:

1. Before further flight ensure that the fuel being used is one of the following types:
   - Jet A or A1 conforming to specification ASTM-D-1655;
   - JP5 conforming to MIL-T-5624;
   - Fuels conforming to DERD 2494 or 2498; or
   - Fuels conforming to AIR 3404 or 3405.
2. Within 48 hours incorporate the following information into the Limitations Section of the Airplane Flight Manual and provide to crews:

"The only approved fuels are Jet A and A1 conforming to Specification ASTM-D-1655, JP5 conforming to MIL-T-5624, fuels conforming to DERD 2494 or 2498, and fuels conforming to AIR 3404 or 3405."

3. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

NOTE: Compliance with paragraph 2. of this directive may be effected by including a copy of this AD in the Airplane Flight Manual and Operating Manual.

This amendment becomes effective August 6, 1985. It was effective earlier to all recipients of telegraphic AD 85-11-52, issued June 7, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Stewart R. Miller, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office, telephone (206) 431-2969. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

ROLLS ROYCE
Airworthiness Directive
Revision
Volume II

85-10-05 R1 ROLLS-ROYCE LIMITED: Amendment 39-5063 as amended by Amendment 39-5239. Applies to Rolls-Royce RB211-22B and RB211-524B, -524C, and -524D series turbofan engines.

Compliance is required as indicated unless already accomplished.

To prevent an internal oil fire, failure of the low compressor rotor shaft, and subsequent low turbine rotor overspeed leading to an uncontained rotor failure, accomplish the following:

Prior to December 31, 1987, incorporate low pressure rotor location bearing area modifications as specified in Rolls-Royce Mandatory SB RB211-72-6847, Revision 2, dated March 30, 1984, or FAA approved equivalent.

Upon request, an alternate means of compliance may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

The manufacturer's SB identified and described in this directive is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received the SB from the manufacturer may obtain copies upon request to Rolls-Royce Limited, Technical Publications Department, P.O. Box 31, Derby DE2 8BJ, England. The SB may also be examined at the office of the Regional Counsel, New England Region, Federal Aviation Administration, Rules Docket No. 84-ANE-14, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays between the hours of 8:00 a.m. and 4:30 p.m. except Federal holidays.

Amendment 39-5063 became effective on July 23, 1985.

This amendment 39-5239 becomes effective on March 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

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BELL, TEXAS HELICOPTER, HAWKEYE, TERYJON, CONTINENTAL COPTERS
Airworthiness Directive
VOLUME I

86-06-08 BELL HELICOPTER TEXTRON, INC.; TEXAS HELICOPTER CORPORATION; HAWKEYE ROTOR AND WING; TERYJON AVIATION, INC.; CONTINENTAL COPTERS, INC.: Amendment 39-5260. Applies to Model 47 series, U.S. Army Model OH-13E and U.S. Army Model OH-13H, and Model Fast Kat I (U.S. Army Model OH-13S) helicopters certified in any category equipped with main rotor blade grips, BHTI Part Numbers (P/N) 47-120-135-2, and 47-120-135-3, 47-130-135-5, and 47-120-252-1; Main Rotor Blade Grip Assembly BHTI P/N's 47-120-252-7 and 47-120-252-11; and Texas Helicopters, Inc., P.M.A. P/N's 74-120-252-11 and 74-120-135-5.

Compliance is required as indicated, unless already accomplished.

To prevent failure of the main rotor blade grip, accomplish the following:

(a) Inspect main rotor blade grips having 1,175 hours or more time in service on the effective date of this AD within the next 25 hours time in service, and thereafter at intervals not to exceed 300 hours time in service in accordance with paragraph (c) of this AD.

(b) Inspect main rotor blade grips having less than 1,175 hours time in service prior to the accumulation of 1200 hours time in service and thereafter at intervals not to exceed 300 hours time in service in accordance with paragraph (c) of this AD.

(c) Perform a fluorescent dye penetrant inspection of the main rotor blade grip threads in accordance with Military Specification No. MIL-I-6866B through Amendment 3.

(d) Alternative inspections, modifications, or other actions which provide an equivalent level of safety may be used when approved by the Manager, Helicopter Certification Branch, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101.

The military specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive may obtain copies of Military Specification MIL-I-6866B upon request to Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, Pennsylvania 19120, by referencing MIL-I-6866B listed in D.O.D. Index of Specifications and Standards. These documents may also be examined in Room 158, Building 3B, Office of Regional Counsel, Southwest Region, 4400 Blue Mound Road, Fort Worth, Texas, between 8 a.m. and 4 p.m., weekdays, except Federal holidays.

This amendment becomes effective March 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Gary B. Roach, Helicopter Certification Branch, ASW-170, Aircraft Certification Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone number (817) 877-2593.

SIKORSKY
Airworthiness Directive
Final Copy of Letter
VOLUME I

85-15-06 SIKORSKY AIRCRAFT: Amendment 39-5164. Applies to Sikorsky Model S-76A helicopters certificated in all categories.

Compliance is required prior to further flight, unless already accomplished.

To prevent failure of certain tail rotor drive shaft bearings which may have been installed without lubricant, accomplish the following in accordance with Sikorsky Aircraft Alert Service Bulletin (ASB) 76-66-20, paragraph E.1, dated July 25, 1985.

(a) Remove all Part Number (P/N) SB1138-101 bearings manufactured by MRC not identified with either a white dot on the grease fitting or a serial number and with under 100 hours operating time.

(b) Replace removed bearings with MRC P/N SB1138-101 bearings identified with either a white dot on the grease fitting or a serial number or both, or with the alternate bearing manufactured by Fafnir and approved for this installation.

(c) Aircraft may be ferried in accordance with the provisions of FAR Section 21.197 and 21.199 to a base where the AD can be accomplished.

(d) Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Boston Aircraft Certification Office, ANE-150, 12 New England Executive Park, Burlington, Massachusetts 01803. Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Boston Aircraft Certification Office, ANE-150, may adjust the compliance time specified in this AD.

Sikorsky Aircraft ASB 76-66-20 is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Mr. R. E. Warren, Sikorsky Aircraft Division, United Technologies Corporation, North Main Street, Stratford, Connecticut 06601. These documents also may be examined at the Rules Docket, Office of the Regional Counsel, FAA, Southwest Region, 4400 Blue Mound Road, Fort Worth, Texas 76106.

This amendment becomes effective November 25, 1985, as to all persons except those persons to whom it was made immediately effective by priority letter AD No. 85-15-06, issued July 30, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:
Mr. Terry Fahr, ANE-153, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7103.

PIPER
Airworthiness Directive
Correction
Volume I

85-08-05 PIPER: Amendment 39-5040. Applies to Models PA-31/PA-31-300 and PA-31-325 (S/Ns 31-2 through 31-8312014); PA-31-350 (S/Ns 31-5001 through 31-8352042); PA-31-350 T-1020 (S/Ns 31-8153001 through 31-8353007); PA-31P (S/Ns 31P-1 through 31P-7730012); PA-31T (S/Ns 31T-7400002 through 31T-8120104); PA-31T1 (S/Ns 31T-7804001 through 31T-8304003 and 31T-1104004 through 31T-1104006; PA-31T2 (S/Ns 31T-8166001 through 31T-8166071, 31T-8166073, and 31T-8166076) and PA-31T3 T-1040 (S/Ns 31T-8275001 through 31T-8375003) airplanes certificated in any category.

Compliance: Required within the next 100 hours time-in-service after the effective date of this AD, unless already accomplished.

To preclude loss of the main and nose landing gear, accomplish the following:

(a) On all applicable airplanes, remove each piston tube assembly from its strut housing in accordance with instructions in the appropriate Maintenance Manual.

(1) Inspect the interior walls of each strut housing for abnormal wear or damage (gouges, scoring, ridges, non-concentric wear). Replace housing assembly if such wear or damage is indicated.

(2) Remove and replace the retaining pins connecting the upper bearing to the piston tube in accordance with either paragraph (a)(4)(i) or (a)(4)(ii) of this AD. The bearing and piston tube are drilled to allow slip fit, and the pins should come out easily. Seizing or deformation of pins is an indication of the damage described in paragraph (a)(4)(i), below.

(3) On Models PA-31/PA-31-300 and PA-31-325 (S/Ns 31-2 through 31-8312014); PA-31-350 (S/Ns 31-5001 through 31-8352042); PA-31P (S/Ns 31P-1 through 31P-7730012); PA-31T (S/Ns 31T-7400002 through 31T-8020088); PA-31T1 (S/Ns 31T-7804001 through 31T-8004055); PA-31T2 (S/Ns 31T-8166001 through 31T-8166013) airplanes only:

Remove the upper bearing and inspect the area shown in Sketch A of Piper Service Bulletin No. 779A dated July 16, 1984. If ridges are found in the designated inspection area, replace the bearing. Inspect replacement bearings in accordance with Sketch A prior to installation.

(4) Visually inspect the pin holes in the piston tube.

(i) If holes are found to be elongated, deformed, chamferred, or out of tolerance (holes should be concentric with nominal dimension of .250 - .251), or if standard Piper Part Number 01821-06 or 01821-07 pins cannot be pressed easily

into holes, install oversize pins in accordance with either Piper Kit 764 417 or Piper Kit 764 418.

(ii) If holes are acceptable, replace pins with new harder retaining pins, Piper Part Number 01821-06 or Piper Part Number 01821-07, as applicable for the strut involved.

(5) Reassemble the strut, replacing all seals, rings and wipers with new parts per applicable parts catalog and reinstall landing gear in accordance with appropriate Maintenance Manual.

(b) Aircraft may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(c) An equivalent method of compliance with this AD may be used if approved by the Manager, Atlanta Aircraft Certification Office, ACE-115A, FAA Central Region, 1075 Inner Loop Road, College Park, Georgia 30337; telephone (404) 763-7428.

This amendment becomes effective on May 20, 1985.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles L. Perry, ACE-120A, Aerospace Engineer, Airframe Branch, Atlanta Aircraft Certification Office, FAA, 1075 Inner Loop Road, College Park, Georgia 30337; telephone (404) 763-7407.

CESSNA
Airworthiness Directive
Correction
Volume I

85-17-07 CESSNA: Amendment 39-5125. Applies to the following Cessna airplanes certificated in any category:

MODEL	SERIAL NUMBER
U206F/TU206F	S/N U20601071 thru U20603521
U206G/TU206G	S/N U20603522 thru U20604649
207/T207	S/N 20700001 thru 20700315
207A/T207A	S/N 20700363 thru 20700767

Compliance: Required within the next 100 hours time-in-service after the effective date of this AD unless already accomplished.

To prevent a possible failure in the wing rear spar on airplanes that ve had the full spar or inboard end of the spar replaced, accomplish the following:

(a) Visually inspect the airplane in accordance with Cessna Single Engine Service Bulletin SEB85-9 dated May 3, 1985. If the P/N 1222111-1 doubler is missing, prior to further flight repair the spar in accordance with SEB85-9.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) An equivalent method of compliance with this AD may be used if approved by Manager, Wichita Aircraft Certification Office, Federal Aviation Administration, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the document referred to herein upon request to Cessna Aircraft Company, Post Office Box 1521, Wichita, Kansas 67201 or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on September 30, 1985.

FOR FURTHER INFORMATION CONTACT:

Mr. Douglas W. Haig, Aerospace Engineer, FAA, ACE-120W, 1801 Airport Road, Wichita, Kansas 67209; telephone (316) 946-4409.

GATES LEARJET
Airworthiness Directive
Revision
Volume I

82-01-04 R2 GATES LEARJET: Amendment 39-4296 as amended by Amendment 39-4751 is further amended by Amendment 39-5242. Applies to the following models and serial number airplanes certificated in any category:

MODELS	SERIAL NUMBERS
25, 25A	25-003 through 25-066 except 25-061
25B, 25C	25-061, 25-067 through 25-205

COMPLIANCE: Required as indicated, unless previously accomplished.

A) On or before the compliance date (Reference Table I), accomplish the requirements of this paragraph at an FAA certificated maintenance repair agency. However, the modification and inspection of the horizontal stabilizer trim actuator as required in the airplane modification kits referenced in Table I may be performed by another FAA certificated repair agency utilizing qualified technicians who must have recent accessory overhaul experience performing the overhaul and test of the Gates Learjet Horizontal Stabilizer Trim Actuator with the necessary shop equipment (Attachment I hereto) as referenced in Learjet Repair Manual Number 1711-9, or the equivalent equipment.

1) Modify Learjet Models 25, 25A and 25B/C airplane flight control systems, stall warning and control wheel in accordance with the following:

Table I

Gates Learjet Airplane Modification Kit	Learjet Models	Compliance Date/Time
AMK 81-9, *AMK 81-8, and AMK 80-13 Change 3	25 B/C	On or before October 31, 1982
AMK 81-10 Change 1, *AMK 81-8, and AMK 80-13 Change 3	25, 25A	On or before August 31, 1982

* Kit AMK 81-8 does not apply unless Kit AAK 76-4 has been installed.

B) Required Airplane Maintenance Record entry must be accomplished by the facility performing its portion of the AD as prescribed in paragraph A) of this AD.

C) Insert in the appropriate sections of the existing Airplane Flight Manual (AFM) the FAA approved temporary

Airplane Flight Manual Change pertaining to procedures required as a result of the modification of the flight control system in accordance with Airplane Modification Kit, all as listed in Table II below. Upon completion of the modifications required by paragraph A) of this AD and the insertion of the temporary AFM changes or equivalent permanent AFM revision, the identified, more restrictive paragraphs of AD 80-19-11 set forth in Table II below are no longer applicable.

Table II

Learjet AMK	Learjet Model	AFM Change Date	AD 80-19-11 Paragraphs of AD Superseded
AMK 81-10	25, 25A	October 14, 1981	A)2, A)5, A)6
AMK 81-9	25B/C	September 4, 1981	A)2, A)5, A)6

D) To ensure proper operation of the Stall Warning Accelerometer Unit, unless previously inspected in the last 100 hours time-in-service before the effective date of this AD, within the next 50 hours time-in-service, and at intervals not to exceed 220 hours time-in-service thereafter, perform the inspection of the Stall Warning Accelerometer in accordance with Gates Learjet Service Bulletin SB 23/24/25-301B, as appropriate.

E) Prior to accomplishing the modification required by paragraph A) of this AD, contact the FAA office noted in paragraph G) of this AD if any modification or alteration has been performed on the affected airplane for further instruction relative to the compatibility of the modification of this AD.

F) Airplanes may be flown in accordance with FAR 21.197 to a location where modifications required by this AD can be accomplished.

G) Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this proposal who have not already received the applicable service information from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-4296 became effective on January 8, 1982.

Amendment 39-4751 became effective on November 1, 1983.

This Amendment 39-5242 becomes effective April 7, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

GATES LEARJET
Airworthiness Directive
Revision
Volume I

82-01-05 R2 GATES LEARJET: Amendment 39-4297 as amended by Amendment 39-4746 is further amended by Amendment 39-5245. Applies to the following models and serial number airplanes certificated in any category.

MODEL	SERIAL NUMBER
23	23-003 through 23-099
24, 24A	24A-011, 24A-012, 24-015, 24-019, 24-031, 24-043, 24-050, 24-051, 24-055, 24-060, 24-065, 24-087, 24-096, and 24-100 through 24-180
24B, 24B-A	24-181 through 24-217, 24-219 through 24-229
24C, 24D, 24D-A	24-218, 24-230 through 24-328
24E, 24F, 24F-A	24-329 through 24-357
25D, 25F	25-206 through 25-336, 25-338 and on
28	28-001 and on
29	29-001 and on
35, 35A	35-001 through 35-505
36, 36A	36-001 through 36-053

COMPLIANCE: Required as indicated.

A. To assure proper operation of the Stall Warning Accelerometer Unit, unless previously inspected in the last 200 hours time-in-service before the effective date of this AD, within the next 50 hours time-in-service, and at intervals not to exceed 220 hours time-in-service thereafter, perform the inspection of the Stall Warning Accelerometer in accordance with Gates Learjet Service Bulletins (SB) 23/24/25-301B, SB 28/29-27-3B, or SB 35/36-27-12B, as appropriate. Models 35 and 36 series airplanes incorporating Gates Learjet Airplane Accessory Kit 83-2 are exempt from the requirements of this AD.

B. Airplanes may be flown in accordance with FAR 21.197 to a location where modifications required by this AD can be accomplished.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive who have not already received the appropriate service documents from the

manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-4297 became effective on January 8, 1982.
Amendment 39-4746 became effective on October 31, 1983.
This Amendment 39-5245 becomes effective on April 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

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86-02-02 Boeing
86-02-03 Boeing
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86-02-06 Boeing
T86-02-51 Pratt & Whitney
Revision Boeing - Revises AD 85-03-06
Revision Gates Learjet - Revises AD 85-22-08

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Correction - Gates Learjet - Corrects AD 85-22-04

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86-05-01 Boeing
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86-05-05 Gates Learjet - Supersedes AD 85-22-04
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86-05-10 McDonnell Douglas
86-05-11 Boeing
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86-01-02 Cessna
Correction Boeing - Corrects AD 85-11-52
Revision Rolls Royce - Revises AD 85-10-05

ISSUE 86-06

86-06-01 Boeing
86-06-02 Hartzell
86-06-03 SAAB-Fairchild
86-06-04 British Aerospace
86-06-05 British Aerospace
86-06-06 Boeing
86-06-07 Short Brothers
85-23-51 Boeing Vertol
Correction British Aerospace - Corrects AD 84-07-03
Revision Gates Learjet - Revises AD 82-01-04
Revision Gates Learjet - Revises AD 82-01-05

BOEING
Airworthiness Directive
Volume II

86-06-01 BOEING: Amendment 39-5257. Applies to all Model 767 airplanes, certificated in any category. Compliance is required as stated below. To preclude engine or pneumatic system damage caused by the failure of the pneumatic system 8th stage check valve, Hamilton Standard Part Number 773856-3, accomplish the following, unless already accomplished:

A. Within 500 hours time in service after the effective date of this AD, inspect the pneumatic system 8th stage check valve, Hamilton Standard Part Number 773856-3, in accordance with Boeing Service Bulletin 767-36-0017, dated January 17, 1986, or later FAA-approved revisions. If the valve contains any visible cracks, or exceeds the allowable wear limits specified in the referenced service bulletin, repair the valve in accordance with the referenced service bulletin, or replace the valve with a serviceable valve before further flight. Valves not installed on an airplane must be inspected prior to their installation.

B. Repeat the inspection procedures in paragraph A., above, at intervals not to exceed 2,000 hours time in service.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this AD who have not already received copies of the Service Bulletin cited herein may obtain copies upon request from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 1, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Gary D. Lium, Systems and Equipment Branch, ANM-130S; telephone (206) 431-2946. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-06-02 HARTZELL PROPELLER PRODUCTS DIVISION: Amendment 39-5259. Applies to Hartzell Propeller Products Division Model HC-B5MP-3 five bladed propellers installed on Aerospatiale (Nord) Model 262A modified by STC SA2369SW and Short Brothers Ltd. Model SD3-30 aircraft.

Compliance is required as indicated, unless already accomplished.

To prevent propeller separation from aircraft, accomplish the following:

(a) For propellers installed on Aerospatiale (Nord) Model 262A modified by STC SA2369SW, inspect the P/N B-3339 propeller attach bolts in accordance with paragraph (c) below within the next 100 hours time-in-service after the effective date of this AD, and thereafter at intervals not to exceed 100 hours time-in-service from the last inspection.

(b) For propellers installed on Short Brothers Ltd. Model SD3-30 aircraft, inspect the P/N B-3339 propeller attach bolts in accordance with paragraph (c) below within the next 300 hours time-in-service after the effective date of this AD, and thereafter at intervals not to exceed 300 hours time-in-service from the last inspection.

(c) Check the torque with a torque wrench and an appropriate adapter of all eight propeller attach bolts (with washers installed). If the torque of any one of the bolts is found to be less than 90 ft.-lbs., remove, prior to further flight, all eight bolts and washers and replace with new (B-3339) bolts and new (A-2048-2) washers in accordance with Hartzell Instructions No. 140A (Issue 5), dated January 28, 1986, or FAA approved equivalent.

(d) Notify the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Ave., Des Plaines, Illinois 60018, in writing of any low torqued, less than 90 ft.-lbs., or failed bolts. Also, the hub serial number(s), along with the total time on the bolt(s) and hub(s), must be reported.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Ave., Des Plaines, Illinois 60018.

Upon submission of substantiating data by an owner or operator, through an FAA-maintenance inspector, the Manager, Chicago Aircraft Certification Office, may adjust the compliance time specified in this AD.

Hartzell Instructions No. 140A (Issue 5), dated January 28, 1986, identified and described in this directive, is incorporated herein and made a part hereof pursuant to 5 U.S.C.

552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Hartzell Propeller Products Division, TRW Aircraft Components Group, 350 Washington Ave., Piqua, Ohio 45356. This document also may be examined at the Office of the Regional Counsel, FAA, Attn: Rules Docket No. 86-ANE-7, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective on March 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert Alpiser, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Ave., Des Plaines, Illinois 60018; telephone 312-694-7130.

SAAB-FAIRCHILD
Airworthiness Directive
Volume II

86-06-03 SAAB-FAIRCHILD: Amendment 39-5258. Applies to Model SF-340A series airplanes, serial numbers 003 through 048, inclusive, certificated in any category. Compliance is required as indicated below, unless previously accomplished:

1. Within the next seven days after the effective date of this AD, incorporate the following into the limitations section of the airplane flight manual: "More than 20 degrees flap is NOT authorized at any time." This may be accomplished by including a copy of this AD in the airplane flight manual.

2. Within the next 21 days after the effective date of this AD, install a mechanical stop on the flap handle to limit the flap extension to a maximum setting of 20 degrees in accordance with SAAB-Fairchild Service Bulletin SF 340-27-036, dated February 13, 1986.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

4. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to SAAB-Fairchild Corporation, Product Support, S.58188, Linkoping, Sweden. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 1, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BRITISH AEROSPACE
Airworthiness Directive
Volume II

86-06-04 BRITISH AEROSPACE: Letter issued March 19, 1986. Applies to Models DH.125-1A, DH.125-1A/522, DH.125-1A/S-522, and DH.125-3A airplanes, all serial numbers, certificated in any category. To prevent loss of control due to asymmetric flaps, accomplish the following, unless already accomplished:

A. Before further flight, inspect the left-hand and right-hand flap drive torque shaft assemblies, and repair or replace, as necessary, in accordance with British Aerospace (BAe) Alert Service Bulletin 27-A140, dated March 10, 1986.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the inspections and/or repairs required by this AD in accordance with the inspections and limitations of paragraph 2A.(7) of BAe Alert Service Bulletin 27-A140.

C. An alternate method of compliance or adjustment of compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:
Judy Golder, Standardization Branch, ANM-113, FAA, Northwest Mountain Region, telephone (206) 431-2909.

BRITISH AEROSPACE
Airworthiness Directive
Volume II

86-06-05 BRITISH AEROSPACE AIRCRAFT GROUP: Amendment 39-5263. Applies to all BAe Model HS 748 airplanes, certificated in any category. Compliance is required within 60 days after the effective date of this AD. To prevent the detachment of the windshield wiper actuating arm, accomplish the following, unless already accomplished:

A. Inspect and modify, as necessary, the windshield actuating arm in accordance with Dunlap Limited Aviation Division Service Bulletin 30-92, dated March 7, 1985.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BRITISH AEROSPACE
Airworthiness Directive
Volume II

86-06-05 BRITISH AEROSPACE AIRCRAFT GROUP: Amendment 39-5263. Applies to all BAe Model HS 748 airplanes, certificated in any category. Compliance is required within 60 days after the effective date of this AD. To prevent the detachment of the windshield wiper actuating arm, accomplish the following, unless already accomplished:

A. Inspect and modify, as necessary, the windshield actuating arm in accordance with Dunlap Limited Aviation Division Service Bulletin 30-92, dated March 7, 1985.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BRITISH AEROSPACE
Airworthiness Directive
Volume II

86-06-05 BRITISH AEROSPACE AIRCRAFT GROUP: Amendment 39-5263. Applies to all BAe Model HS 748 airplanes, certificated in any category. Compliance is required within 60 days after the effective date of this AD. To prevent the detachment of the windshield wiper actuating arm, accomplish the following, unless already accomplished:

A. Inspect and modify, as necessary, the windshield actuating arm in accordance with Dunlap Limited Aviation Division Service Bulletin 30-92, dated March 7, 1985.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-06-06 BOEING: Amendment 39-5261. Applies to Boeing Model 767 airplanes, certificated in any category, equipped with the following PICO, Inc., emergency evacuation slides:

PART NUMBER	SERIAL NUMBERS
101623-( )	B23-001 thru and including B23-383
101630-( )	B101-001 thru and including B101-140 B102-001 thru and including B102-143
101651-( )	B51-001 thru and including B51-291
101654-( )	L54-001 thru and including L54-041 R54-001 thru and including R54-038
101655-( )	L55-001 thru and including L55-032 R55-001 thru and including R55-031
101656-( )	L56-001 thru and including L56-013 R56-001 thru and including R56-012

NOTE: Empty parentheses indicate any number.

Compliance is required as indicated in the body of the AD, unless previously accomplished.

To prevent the failure of the emergency evacuation slides accomplish the following:

A. For airplanes equipped with PICO, Inc., emergency evacuation slides manufactured prior to June 30, 1983, within 30 days after the effective date of this AD, unless the slide has been inflated and inspected within the last one year prior to the effective date of this AD in accordance with the applicable PICO Component Maintenance Manual Numbers 25-61-20, 25-61-21, or 25-61-22, all dated April 1, 1985, or PICO Service Bulletin No. 101623/30/51/54/55-25-130, dated February 6, 1986, conduct inflation and inspection of the emergency evacuation slides AD in accordance with PICO Service Bulletin No. 101623/30/51/54/55-25-130, dated February 6, 1986, or later revision approved by the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region.

B. For airplanes equipped with PICO, Inc., emergency evacuation slides manufactured between July 1, 1983, and January 31, 1986, within 120 days after the effective date of this AD, unless the slide has been inflated and inspected within the last one year prior to the effective date of this AD, in accordance with the applicable PICO Component Maintenance Manual Numbers 25-61-20, 25-61-21 or 25-61-22, all

dated April 1, 1985, or PICO Service Bulletin No. 101623/30/51/54/55-25-130, dated February 6, 1986, conduct an inflation and inspection of the emergency evacuation slides in accordance with PICO Service Bulletin No. 101623/30/51/54/55-25-130, dated February 6, 1986, or later revision approved by the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region.

C. For airplanes equipped with slides not inspected in accordance with paragraph A. or B. of this AD, those slides must be inflated and inspected in accordance with PICO Service Bulletin No. 101623/30/51/54/55-25-130 dated February 6, 1986, or later revision approved by the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region, within 18 months from the date of the last inflation and inspection.

D. Repeat the inflation and inspection specified in paragraphs A., B., and C. of this AD at intervals not to exceed 18 months.

E. Any defective slide discovered during accomplishment of paragraphs A., B., C., or D. of this AD must be replaced or repaired, prior to next flight, in accordance with the Repair Section of applicable PICO Component Maintenance Manual Numbers 25-61-20, 25-61-21, or 25-61-22, all dated April 1, 1985, or later revision approved by the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Report any seam separation or slide failure discovered during accomplishment of paragraphs A., B., C., or D. of this AD to the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region.

G. The inspection intervals of paragraph D. of this AD may be adjusted by the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region, based on the results of accomplishment of paragraphs A., B., and C. of this AD, or any other substantiating data submitted to justify a change.

H. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to PICO, Inc., 15350 Stafford Street, City of Industry, California 91744. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at the Western Aircraft Certification Office, 15000 Aviation Boulevard, Hawthorne, California.

This amendment becomes effective April 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert Stacho, Aerospace Engineer, Systems & Equipment Section, ANM-173W, FAA, Northwest Mountain Region, Western Aircraft Certification Office; telephone (213) 297-1387. Mailing address: FAA, Northwest Mountain Region, Western Aircraft Certification Office, ANM-173W, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007.

86-06-07 SHORT BROTHERS, LTD.: Amendment 39-5262. Applies to Short Brothers, Ltd., Model SD3-60 airplanes, serial numbers SH 3601 through SH 3665 inclusive, certificated in any category. Compliance is required within 90 days after the effective date of this AD, unless previously accomplished.

1. To prevent control system interference, install extended and additional guards in accordance with Short Brothers, Ltd., Service Bulletin SD360-27-04, dated March 1985.

2. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to Shorts Aircraft, 1725 Jefferson Davis Highway, Suite 510, Arlington, Virginia 22202. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING VERTOL
Airworthiness Directive
Final Copy of Letter
Volume II

85-23-51 R1 BOEING VERTOL COMPANY: Amendment 39-5253. Applies to Boeing Vertol Model 234 series helicopters certificated in any category.

Compliance is required as indicated unless already accomplished.

To prevent possible hazards in flight associated with a cracked main rotor head vertical hinge pin, accomplish the following:

(a) Prior to further flight, conduct a visual inspection of the forward and aft main rotor head vertical hinge pins, P/N 114R2172-1, internal surface with a light assisted bore-scope for cracks.

(b) After the initial inspection of paragraph (a), repeat the inspection prior to the first flight of each day.

(c) Within the next 150 hours time in service from March 31, 1986, conduct an eddy current inspection of the internal surfaces of the forward and aft main rotor head vertical hinge pins, P/N 114R2172-1, in accordance with the instructions contained in Boeing Vertol Document D210-12089-1 titled "Eddy Current Inspection Requirements for Detection of Cracks in P/N 114R2172, Vertical Hinge Pins." Upon accomplishment of this paragraph, the daily bore-scope inspection of paragraph (b) may be eliminated.

(d) Within the next 500 hours time in service from March 31, 1986, remove from the helicopter the main rotor head vertical hinge pins and conduct a magnetic particle inspection in accordance with Boeing Airplane Company document BAC 5424 titled "Magnetic Particle Inspection" Class B.

(e) Remove from service vertical hinge pins found cracked and replace with a serviceable part prior to further flight.

(f) Any alternate method of compliance with the AD which provides an equivalent level of safety may be used when approved by the Manager, New York Aircraft Certification Office, Federal Aviation Administration, 181 South Franklin Avenue, Valley Stream, New York 11581.

The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Boeing Vertol Company, Boeing Center, P.O. Box 1858, Philadelphia, Pennsylvania 19142. These documents may also be examined at the Office of the Regional Counsel, FAA Southwest Region, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas 76106.

This amendment becomes effective March 31, 1986, as to all persons except those to whom it was made immediately effective by telegraphic AD T85-23-51 issued November 20, 1985, which contained part of this amendment.

FOR FURTHER INFORMATION CONTACT:

Joseph E. Chrastil, ANE-172, New York Aircraft Certification Office, Federal Aviation Administration, 181 South Franklin Avenue, Valley Stream, New York 11581, telephone number (516) 791-6221.

BRITISH AEROSPACE
Airworthiness Directive
Correction
Volume II

84-07-03 R1 BRITISH AEROSPACE, AIRCRAFT GROUP: Amendment 39-4837 as amended by Amendment 39-5251. Applies to all Viscount Model 700 series and 800 series airplanes certificated in all categories. Compliance required as indicated. To prevent collapse of the nose landing gear, accomplish the following:

1. Within the next six months after the effective date of this AD, unless previously accomplished within the last six months, and thereafter at intervals not to exceed six months, inspect and repair, as necessary, the nose landing gear in accordance with Paragraph 2, Accomplishment Instructions, of British Aerospace Preliminary Technical Leaflet No. 125, Issue 4, for all Model 800 series airplanes. Paragraphs 2.5 and 2.5.1 must be accomplished at the first inspection and thereafter at intervals not to exceed one year.

2. Within the next six months after the effective date of this AD, unless previously accomplished within the last six months, and thereafter at intervals not to exceed six months, inspect and repair, as necessary, the nose landing gear in accordance with the Accomplishment Instructions of Paragraphs 2.1 thru 2.4, and 2.7 of the British Aerospace Preliminary Technical Leaflet No. 262, Issue 4, for all Model 700 series airplanes; and during the first inspection only, accomplish Paragraph 2.6 and BA Modification D.3284, if applicable. Paragraph 2.5 must be accomplished at the first inspection and thereafter at intervals not to exceed one year.

3. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

4. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

Amendment 39-4837 supersedes Amendment 39-1058 (35 FR 12325), AD 70-16-06.

Amendment 39-4837 became effective May 6, 1984.

This Amendment 39-5251 becomes effective March 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Harold N. Wantiez, Standardization Branch, ANM-113; telephone (206) 431-2977. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

GATES LEARJET
Airworthiness Directive
Revision
Volume II

82-01-04 R2 GATES LEARJET: Amendment 39-4296 as amended by Amendment 39-4751 is further amended by Amendment 39-5242. Applies to the following models and serial number airplanes certificated in any category:

MODELS	SERIAL NUMBERS
25, 25A	25-003 through 25-066 except 25-061
25B, 25C	25-061, 25-067 through 25-205

COMPLIANCE: Required as indicated, unless previously accomplished.

A) On or before the compliance date (Reference Table I), accomplish the requirements of this paragraph at an FAA certificated maintenance repair agency. However, the modification and inspection of the horizontal stabilizer trim actuator as required in the airplane modification kits referenced in Table I may be performed by another FAA certificated repair agency utilizing qualified technicians who must have recent accessory overhaul experience performing the overhaul and test of the Gates Learjet Horizontal Stabilizer Trim Actuator with the necessary shop equipment (Attachment I hereto) as referenced in Learjet Repair Manual Number 1711-9, or the equivalent equipment.

1) Modify Learjet Models 25, 25A and 25B/C airplane flight control systems, stall warning and control wheel in accordance with the following:

Table I

Gates Learjet Airplane Modification Kit	Learjet Models	Compliance Date/Time
AMK 81-9, *AMK 81-8, and AMK 80-13 Change 3	25 B/C	On or before October 31, 1982
AMK 81-10 Change 1, *AMK 81-8, and AMK 80-13 Change 3	25, 25A	On or before August 31, 1982

* Kit AMK 81-8 does not apply unless Kit AAK 76-4 has been installed.

B) Required Airplane Maintenance Record entry must be accomplished by the facility performing its portion of the AD as prescribed in paragraph A) of this AD.

C) Insert in the appropriate sections of the existing Airplane Flight Manual (AFM) the FAA approved temporary

Airplane Flight Manual Change pertaining to procedures required as a result of the modification of the flight control system in accordance with Airplane Modification Kit, all as listed in Table II below. Upon completion of the modifications required by paragraph A) of this AD and the insertion of the temporary AFM changes or equivalent permanent AFM revision, the identified, more restrictive paragraphs of AD 80-19-11 set forth in Table II below are no longer applicable.

Table II

Learjet AMK	Learjet Model	AFM Change Date	AD 80-19-11 Paragraphs of AD Superseded
AMK 81-10	25, 25A	October 14, 1981	A)2, A)5, A)6
AMK 81-9	25B/C	September 4, 1981	A)2, A)5, A)6

D) To ensure proper operation of the Stall Warning Accelerometer Unit, unless previously inspected in the last 100 hours time-in-service before the effective date of this AD, within the next 50 hours time-in-service, and at intervals not to exceed 220 hours time-in-service thereafter, perform the inspection of the Stall Warning Accelerometer in accordance with Gates Learjet Service Bulletin SB 23/24/25-301B, as appropriate.

E) Prior to accomplishing the modification required by paragraph A) of this AD, contact the FAA office noted in paragraph G) of this AD if any modification or alteration has been performed on the affected airplane for further instruction relative to the compatibility of the modification of this AD.

F) Airplanes may be flown in accordance with FAR 21.197 to a location where modifications required by this AD can be accomplished.

G) Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this proposal who have not already received the applicable service information from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-4296 became effective on January 8, 1982.

Amendment 39-4751 became effective on November 1, 1983.

This Amendment 39-5242 becomes effective April 7, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

ATTACHMENT I

The stabilizer actuator test stand (P/N ST-00463) is used to functionally test the stabilizer actuator after overhaul. The physical structure of the test must be capable of withstanding a minimum load of 2500 lbs. without any bending or deformation.

The stabilizer actuator is vertically mounted on the test stand with one end stationary and the other end movable through a hydraulic actuator. The test stand consists of the following components:

a. Hydraulic Actuator - The hydraulic actuator is capable of applying a regulated load of 0 to 2500 lbs. on the stabilizer actuator during the entire extend or retract cycles.

b. Hydraulic Pressure Regulator - The pressure regulator is used to select hydraulic pressures applied to the stabilizer actuator during the functional test.

c. Hydraulic Pressure Gauge - The hydraulic pressure gauge is used to monitor hydraulic pressure applied to the stabilizer actuator. The gauge must be certified at least monthly.

d. Digital Position Readout - The digital position readout indicator is used to monitor the travel of the stabilizer actuator. Signals to the indicator are picked up from a rigid mounted linear potentiometer and movable wiper attached to the hydraulic actuator. The digital readout is accurate to 1/1000th of an inch.

e. Linear Scale - A linear scale, graduated in 100th of an inch, is permanently mounted on the test stand to verify the digital readout. A tool of known length is used to verify the linear scale and digital readout before the stabilizer actuator functional test is performed. The tool length must be certified at least yearly.

f. Lapse Timer - A lapse timer is coupled to the control switches and the stabilizer actuator to monitor travel time during the extend and retract cycles. The lapse timer must measure seconds to be accurate to 1/100th of a second.

g. Trim Controller - The trim controller is used to simulate two-speed input to the stabilizer actuator primary motor. The trim controller part number is EM 2079-6.

h. Pre-Select Timer - The pre-select timer is used to check stabilizer actuator travel vs. time, voltage and amperage inputs in accordance with the functional test.

i. Power Supply - The power supply is variable through 0-30 volts DC and 0-30 amperes DC.

j. DC Voltmeter - The DC voltmeter must be capable of measuring 0-30 volts DC and must be certified at least yearly. The voltmeter is used to monitor the voltage inputs to the stabilizer actuator in accordance with the functional test.

k. DC Ammeter - The DC ammeter must be capable of measuring 0-30 amperes DC and must be certified at least yearly. The ammeter is used to monitor the amperes inputs to the stabilizer actuator in accordance with the functional test.

l. Millivolt Meter - The millivolt meter is used to monitor the stabilizer actuator linear potentiometer for a smooth and steady signal output. The meter is 0-50 volts graduated in 100 mv increments.

m. Switches - Necessary switches installed to operate the stabilizer actuator primary and secondary motors to extend or retract.

n. A digital or Simpson 260 meter, not a part of the test stand, is used to verify the resistance of the stabilizer actuator linear potentiometer. The digital or Simpson 260 meter must be certified at least every 90 working days.

GATES LEARJET
Airworthiness Directive
Revision
Volume II

82-01-05 R2 GATES LEARJET: Amendment 39-4297 as amended by Amendment 39-4746 is further amended by Amendment 39-5245. Applies to the following models and serial number airplanes certificated in any category.

MODEL	SERIAL NUMBER
23	23-003 through 23-099
24, 24A	24A-011, 24A-012, 24-015, 24-019, 24-031, 24-043, 24-050, 24-051, 24-055, 24-060, 24-075, 24-087, 24-096, and 24-100 through 24-180
24B, 24B-A	24-181 through 24-217, 24-219 through 24-229
24C, 24D, 24D-A	24-218, 24-230 through 24-328
24E, 24F, 24F-A	24-329 through 24-357
25D, 25F	25-206 through 25-336, 25-338 and on
28	28-001 and on
29	29-001 and on
35, 35A	35-001 through 35-505
36, 36A	36-001 through 36-053

COMPLIANCE: Required as indicated.

A. To assure proper operation of the Stall Warning Accelerometer Unit, unless previously inspected in the last 200 hours time-in-service before the effective date of this AD, within the next 50 hours time-in-service, and at intervals not to exceed 220 hours time-in-service thereafter, perform the inspection of the Stall Warning Accelerometer in accordance with Gates Learjet Service Bulletins (SB) 23/24/25-301B, SB 28/29-27-3B, or SB 35/36-27-12B, as appropriate. Models 35 and 36 series airplanes incorporating Gates Learjet Airplane Accessory Kit 83-2 are exempt from the requirements of this AD.

B. Airplanes may be flown in accordance with FAR 21.197 to a location where modifications required by this AD can be accomplished.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive who have not already received the appropriate service documents from the

manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-4297 became effective on January 8, 1982.

Amendment 39-4746 became effective on October 31, 1983.

This Amendment 39-5245 becomes effective on April 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

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86-07-07 GARLICK HELICOPTERS, HAWKINS AND POWERS AVIATION, INC., INTERNATIONAL HELICOPTERS, INC., PILOT PERSONNEL INTERNATIONAL, INC., WILCO AVIATION: Amendment 39-5274. Applies to Model UH-1B helicopters modified by Garlick Helicopters, Hawkins and Powers Aviation, Inc., International Helicopters, Inc., Pilot Personnel International, Inc., and Wilco Aviation certified in any category that have a Bell Helicopter Textron, Inc., Part Number (P/N) 204-011-128-1 universal on the main rotor pitch change link.

Unless already accomplished, compliance is required within 15 days after the effective date of this AD or the next 10 hours time in service, whichever occurs first.

To prevent loss of main rotor control, accomplish the following:

(a) Inspect the P/N 204-011-128-1 universal assembly on the pitch change control link of the main rotor for Arko Precision Machinists' supplier P/N "DW-6ZZ." If found, replace before further flight with a serviceable assembly.

(b) If the P/N "DW-6ZZ" is missing or cannot be seen, apply MIL-G-81322 grease to each of the two grease fittings on the universal. If the grease does not purge past the seals, replace the P/N 204-011-128-1 universal before further flight with a serviceable assembly.

(c) P/N 212-010-412-1 universal is an acceptable alternate replacement for P/N 204-011-128-1 and may be considered interchangeable.

(d) Any alternate method of compliance which provides an equivalent level of safety with this AD may be used when approved by the Manager, Helicopter Certification Branch, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas 76106.

This amendment becomes effective April 25, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Tom Henry, Helicopter Certification Branch, ASW-170, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone (817) 877-2595.

BELL, TEXAS HELICOPTER, HAWKEYE, TERYJON, CONTINENTAL COPTERS
Airworthiness Directive
Correction
VOLUME I

86-06-08 BELL HELICOPTER TEXTRON, INC.; TEXAS HELICOPTER CORPORATION; HAWKEYE ROTOR AND WING; TERYJON AVIATION, INC.; CONTINENTAL COPTERS, INC.: Amendment 39-5260. Applies to Model 47 series, U.S. Army Model OH-13E and U.S. Army Model OH-13H, and Model Fast Kat I (U.S. Army Model OH-13S) helicopters certified in any category equipped with main rotor blade grips, BHTI Part Numbers (P/N) 47-120-135-2, and 47-120-135-3, 47-120-135-5, and 47-120-252-1; Main Rotor Blade Grip Assembly BHTI P/N's 47-120-252-7 and 47-120-252-11; and Texas Helicopters, Inc., P.M.A. P/N's 74-120-252-11 and 74-120-135-5.

Compliance is required as indicated, unless already accomplished.

To prevent failure of the main rotor blade grip, accomplish the following:

(a) Inspect main rotor blade grips having 1,175 hours or more time in service on the effective date of this AD within the next 25 hours time in service, and thereafter at intervals not to exceed 300 hours time in service in accordance with paragraph (c) of this AD.

(b) Inspect main rotor blade grips having less than 1,175 hours time in service prior to the accumulation of 1200 hours time in service and thereafter at intervals not to exceed 300 hours time in service in accordance with paragraph (c) of this AD.

(c) Perform a fluorescent dye penetrant inspection of the main rotor blade grip threads in accordance with Military Specification No. MIL-I-6866B through Amendment 3.

(d) Alternative inspections, modifications, or other actions which provide an equivalent level of safety may be used when approved by the Manager, Helicopter Certification Branch, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101.

The military specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive may obtain copies of Military Specification MIL-I-6866B upon request to Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, Pennsylvania 19120, by referencing MIL-I-6866B listed in D.O.D. Index of Specifications and Standards. These documents may also be examined in Room 158, Building 3B, Office of Regional Counsel, Southwest Region, 4400 Blue Mound Road, Fort Worth, Texas, between 8 a.m. and 4 p.m., weekdays, except Federal holidays.

This amendment becomes effective March 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Gary B. Roach, Helicopter Certification Branch, ASW-170, Aircraft Certification Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone number (817) 877-2593.

GATES LEARJET
Airworthiness Directive
Correction
VOLUME I

86-05-05 GATES LEARJET CORPORATION: Amendment 39-5248. Applies to the following Gates Learjet models and serial numbers:

MODELS	SERIAL NUMBERS
24D, 24D-A, 24E, 24F, 24F-A	218; 230 thru 357
25, 25B, 25C, 25D, 25F	059; 061; 066 thru 373
28	001 thru 005
29	001 thru 004
35, 35A	001 thru 570; 589 thru 600
36, 36A	001 thru 053; 055

Compliance as indicated in the body of the AD.

To eliminate the potential for a fire and explosion within the battery, caused by leaking fuel entering the battery vent, accomplish the following within the next 200 flight hours, unless already accomplished:

A. Relocate the battery inlet vent in accordance with instructions contained in Gates Learjet Corporation Service Bulletin (SB) 24/25-334A (for Models 24 and 25 series airplanes), SB 28/29-24-5A (for Models 28 and 29 series airplanes), or SB 35/36-24-10 (for Models 35 and 36 series airplanes), dated July 18, 1985, or later FAA-approved revisions.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the modification requirements of this AD.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office,

1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

This amendment supersedes Amendment 39-5161 (50 FR 43565; October 28, 1985), AD 85-22-04.

This amendment becomes effective April 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4419.

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86-07-01 ROLLS-ROYCE LIMITED: Amendment 39-5273. Applies to Rolls-Royce RB211-535E4 turbofan engines.

Compliance is required as indicated, unless already accomplished.

To prevent an uncontained outer combustion case burst, inspect cases in accordance with the requirements of Rolls-Royce SB RB.211-72-7775, dated June 28, 1985, or FAA approved equivalent, as follows:

(a) Inspect cases with 1,500 cycles in service or less since new on the effective date of this AD, prior to accumulating 1,550 cycles in service since new, and reinspect thereafter at intervals as specified in paragraph (c) below.

(b) Inspect cases with greater than 1,500 cycles in service on the effective date of this AD, within the next 50 cycles in service after the effective date of this AD, and reinspect thereafter at intervals as specified in paragraph (c) below.

(c) Reinspect cases previously inspected per paragraphs (a) or (b) above as follows:

(1) At intervals not to exceed 500 cycles in service if no cracks are present.

(2) At intervals not to exceed 100 cycles in service if cracks of less than or equal to 0.5 inch in length are present.

(3) At intervals not to exceed 50 cycles in service if cracks of greater than 0.5 inch but less than or equal to 1.5 inches in length are present.

(d) Remove cases from service, prior to further flight, if cracks of greater than 1.5 inches in length are present at inspection.

NOTE: The crack length is defined as the length of a single crack or the cumulative length of multiple cracks, whichever is greater.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

Aircraft may be ferried in accordance with the provisions of FAR Parts 21.197 and 21.199 to a base where the AD can be accomplished.

Rolls-Royce SB RB.211-72-7775 dated June 28, 1985, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Rolls-Royce Limited, P.O. Box 31, Derby DE2 8BJ, England.

This document also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-25, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

This amendment becomes effective on May 16, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

86-07-02 BRITTEN-NORMAN: Letter issued March 28, 1986. Applies to all BN-2A Mark III Trislander Series (all Models and serial numbers) and BN-2 Islander Series (all Models and serial numbers) airplanes.

Compliance: Required prior to further flight after the effective date of this AD, unless already accomplished within the last 100 hours time-in-service (TIS), and thereafter at intervals not to exceed 100 hours TIS from the last inspection.

To preclude possible failure of the main gear, loss of control and possible catastrophic secondary failures to the airplane, accomplish the following:

(a) Inspect the junction of the torque link lug and upper case for cracks by visual means with 10-power magnifying glass or by dye penetrant.

(b) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where the inspection specified in paragraph (a) above can be accomplished.

(c) If cracked parts are found as a result of the inspection in paragraph (a) of this AD, prior to further flight replace the cracked parts with airworthy units.

(d) If the landing gear is replaced, only equal pairs of the same manufacturer are approved as replacement parts. Mixing of different manufacturer landing gears is not authorized.

(e) The intervals between the repetitive inspections required by this AD may be adjusted up to 10 percent of the specified interval to allow accomplishment of these inspections concurrent with other scheduled maintenance on the airplane.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Aircraft Certification Office, AEU-100, Europe, Africa and Middle East, FAA, c/o American Embassy, 1000 Brussels, Belgium.

CAA-UK Airworthiness Directive No. 005-03-86 issued March 14, 1986, which uses Britten-Norman Campaign Wire BN-2/SB173 as its Mandatory Service Bulletin dated March 14, 1986, pertains to the subject of this AD.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Ted Ebina, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium; telephone (322) 513.38.30; or Mr. Harvey Chimerine, FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; telephone (816) 374-6932.

86-07-03 BOEING AND LOCKHEED-CALIFORNIA COMPANY: Amendment 39-5276. Applies to all Boeing Model 747 series airplanes equipped with Rolls-Royce RB211-524 engines, and all Lockheed Model L-1011 series airplanes, certificated in any category. To prevent loss of throttle control caused by an unstowed left rear fan cowl door support, accomplish the following within 12 months after the effective date of this AD, unless already accomplished:

A. Modify the fan cowl support strut stowage mechanism in accordance with Rolls-Royce Service Bulletin RB211-71-7254, Revision 1, dated December 7, 1984.

B. Alternate means of compliance which provides an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, for Boeing Model 747 airplanes; or the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region, for Lockheed Model L-1011 airplanes.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the modification required by this AD.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124; the Lockheed-California Company, P.O. Box 551, Burbank, California 91520; or from Service Modification Engineer, RB211 Propulsion Systems, Rolls-Royce Limited, P.O. Box 31, Derby, England. These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington; or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beacn, California.

This amendment becomes effective May 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Kanji K. Patel (for Model 747 airplanes), Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168, telephone (206) 431-2973; or Mr. Roy A. McKinnon (for Model L-1011 airplanes), Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808, telephone (213) 548-2835.

86-07-04 SHORT BROTHERS, LTD.: Amendment 39-5272. Applies to Models SD3-30 and SD3-60 airplanes as listed in Short Brothers, Ltd. Service Bulletins SD3-27-29, dated April 1985 (for SD3-30 airplanes), and SD360-27-06, dated April 1985 (for SD3-60 airplanes), certificated in any category.

To prevent the loss of elevator control, accomplish the following within the next 90 days after the effective date of this AD, unless already accomplished:

1. Modify the elevator torque tube assembly in accordance with Short Brothers, Ltd. Service Bulletin SD3-27-29, dated April 1985 (for SD3-30 airplanes), or SD360-27-06, dated April 1985 (for SD3-60 airplanes).

2. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to Shorts Aircraft, 1725 Jefferson Davis Highway, Suite 510, Arlington, Virginia 22202. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-07-05 BRITISH AEROSPACE AIRCRAFT GROUP (BAe): Amendment 39-5271. Applies to all BAe Model HS 748 airplanes, certificated in any category. Compliance is required within the next 750 hours time in service after the effective date of this AD, or upon accumulating the service threshold as specified in paragraph 1.D of BAe Service Bulletin 57/75, Revision 1, dated August 1984, whichever occurs later; and thereafter at the intervals as specified in the service bulletin. To detect cracks in the wing structure, accomplish the following, unless already accomplished:

A. Inspect the wing structure at rib 134.366 and adjacent areas in accordance with BAe Service Bulletin 57/75, Revision 1, dated August 1984. Repair any damage found in accordance with the requirements specified in the service bulletin.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-07-06 BOEING: Amendment 39-5270. Applies to Model 747 series airplanes, listed in Boeing Service Bulletin 747-54-2111, Revision 1, dated November 22, 1985, certificated in any category. To prevent failure of the forward lug of an inboard pylon upper link, accomplish the following, unless already accomplished:

A. Within the next 850 landings after the effective date of this AD or prior to the accumulation of 8,000 landings, whichever occurs later, perform a close visual or ultrasonic inspection of the forward lug of the inboard pylon upper link for cracks in accordance with Boeing Service Bulletin 747-54-2111, Revision 1, dated November 22, 1985, or later FAA-approved revision.

NOTE: Definition of close visual (detailed) inspection method: Close intensive visual inspections of highly defined structural details or locations searching for evidence of structural irregularity. Using adequate lighting and where necessary, inspection aids such as mirrors, etc., surface cleaning and access procedures may be required to gain proximity.

B. Cracked parts must be replaced or modified prior to further flight. The part may be modified, if cracking is within rework limits, by the installation of bushings of a new design in accordance with Boeing Service Bulletin 747-54-2111, Revision 1, dated November 22, 1985, or later FAA-approved revision.

C. If no cracks are found, perform repetitive inspections, as described in paragraph A., above, at the following intervals:

1. If the immediately prior inspection was a close visual inspection, re-inspect within the next 850 landings.

2. If the immediately prior inspection was an ultrasonic inspection, re-inspect within the next 1,700 landings.

D. Installation of inboard pylon upper links that have been modified in accordance with Boeing Service Bulletin 747-54-2111, Revision 1, dated November 22, 1985, or later FAA-approved revision, is considered to be terminating action for the requirements of this AD.

E. Compliance with this AD does not terminate the inspection requirements of the Supplemental Structural Inspection Document (SSID) Airworthiness Directive AD 84-21-02 (Amdt. 39-4936; 49 FR 44890), if applicable.

F. Upon the request of an operator, an FAA Principal Maintenance Inspector, subject to prior approval of the

Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection times specified in this AD to permit compliance at an established inspection period of that operator, if the request contains substantiating data to justify the change for that operator.

G. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

H. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this proposal who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-07-08 DEHAVILLAND: Amendment 39-5279. Applies to all Model DHC-7 series airplanes, certificated in any category. Compliance is required as indicated, unless already accomplished.

To ensure observation of wet starts, detection of heat-damaged wing upper surface structure behind the engine, and protection against wet starts of the engine resulting in external combustion of fuel, accomplish the following:

A. Except as provided in paragraph C., below, within the next 25 hours time-in-service after the effective date of this AD, insert a copy of this AD following Page 2-2-4B of the DHC-7 Airplane Flight Manual (AFM). After every aborted engine start in conjunction with either flight or other operations, follow AFM limitations and applicable procedures for starter cranking cycles, proper fuel draining, and dry motoring/clearing of the engine. An appropriately stationed observer must witness the subsequent starting attempt to determine whether external flames from the exhaust stacks and any burning of residual fuel on wing surfaces occurs.

1. If no external flame or external flame lasting for less than 5 seconds is observed, the airplane may be dispatched.

2. If external flame lasting 5 seconds or more is observed, a visual inspection of the affected wing area must be performed before further flight, in accordance with the Accomplishment Instructions, Paragraph 1, of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985.

a. If distortion or buckling of the skin is evident during the visual inspection, perform an internal conductivity survey of the affected area, and repair, as necessary, before further flight, in accordance with the Accomplishment Instructions of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985. Details of any damage discovered and data obtained from conductivity surveys must be transmitted to DeHavilland Aircraft of Canada, Ltd., immediately for processing.

b. If blistering or charring of the paint due to engine exhaust heat is evident during the visual inspection, before further flight, perform an external conductivity survey and, as necessary, an internal conductivity survey, and make repairs, as necessary, in accordance with the Accomplishment Instructions of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985. Details of any damage discovered and data obtained from conductivity surveys must be

transmitted to DeHavilland Aircraft of Canada, Ltd., immediately for processing.

c. If no visible damage (i.e., no blistering or charring of paint or buckling of the wing skin) is apparent, within 100 flight hours perform an external conductivity survey and, as necessary, an internal conductivity survey, and make repairs, as necessary, of the affected area in accordance with the Accomplishment Instructions of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985. Details of any damage discovered and data obtained from conductivity surveys must be transmitted to DeHavilland Aircraft of Canada, Ltd., immediately for processing.

B. Except as provided in paragraph C., below, within the next 25 hours time-in-service after the effective date of this AD, visually inspect the upper wing skin behind each engine nacelle in accordance with the Accomplishment Instructions, Paragraph 1, of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985.

1. If distortion or buckling of the skin is evident during the visual inspection, repairs must be effected before further flight. In order to determine the extent of repairs, perform an internal conductivity survey of the affected area in accordance with the Accomplishment Instructions of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985. Details of any damage discovered and data obtained from conductivity surveys must be transmitted to DeHavilland Aircraft of Canada, Ltd., immediately for processing.

2. If blistering or charring of the paint due to engine exhaust heat is evident during the visual inspection, before further flight, perform an external conductivity survey and, as necessary, an internal conductivity survey, and make repair, as necessary, of the affected area in accordance with the Accomplishment Instructions of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985. Details of any damage discovered and data obtained from conductivity surveys must be transmitted to DeHavilland Aircraft of Canada, Ltd., immediately for processing.

C. Accomplishment of DeHavilland Modification No. 7/2414 - "Wing - Upper Skin Structure - Special Inspection and Installation of Heat Shields," described in DeHavilland Service Bulletin No. 7-57-25 constitutes terminating action for the visual inspection and conductivity surveys required by paragraphs A. and B., above. When that modification has been accomplished, this AD may then be removed from the Airplane Flight Manual.

1. Prior to installation of Modification No. 7/2414, the following must be accomplished:

a. Perform an external conductivity survey and, as necessary, an internal conductivity survey, and make repairs, as necessary before further flight, of the upper wing skin behind each engine nacelle, in accordance with the Accomplishment Instructions of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985. Details of any damage discovered and data obtained from conductivity surveys

must be transmitted to DeHavilland Aircraft of Canada, Ltd., immediately for processing.

b. For airplanes, serial numbers 1 through 27, Modification Nos. 7/2377 and 7/2378 - "Fuel Tank Access Panel Replacement," described in DeHavilland Service Bulletin No. 7-57-17 (originally issued October 12, 1983), must be accomplished.

D. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to DeHavilland Aircraft of Canada, Ltd., Downsview, Ontario M3K 1Y5, Canada. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York.

This amendment becomes effective April 22, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Vito Pulera, Airframe Branch, ANE-172, New York Aircraft Certification Office, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6220.

86-07-09 BOEING: Amendment 39-5280. Applies to all Boeing Model 757 and 767 airplanes, certificated in any category. To ensure the integrity of the cargo compartment smoke detection system, accomplish the following within 30 days after the effective date of this AD, unless already accomplished:

A. Inspect the four Autronics Corporation Model 2156-204 cargo compartment smoke detectors and verify that a CM 382 (or equivalent) 14 volt lamp is installed in each unit. Install a caution placard as described in Autronics Corporation Tech Data Bulletin titled "Autronics Corporation Model 2156-204 Smoke Detectors, Use of Incorrect Replacement Lamps," dated February 14, 1986. An equivalent placard with the following wording may be used:

CAUTION
RELAMP WITH
CM 382 OR EQIV.
14V. LAMP ONLY

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this AD who have not already received the above specified service information from the manufacturer may obtain copies upon request from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. It may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 22, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert McCracken, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, Seattle Aircraft Certification Office; telephone (206) 431-2947. Mailing address: FAA, Seattle Aircraft Certification Office, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-07-10 BOEING: Amendment 39-5284. Applies to all Model 767 airplanes, certificated in any category, equipped with slide packboard Part Number 416T2003-14 or slide/raft packboard Part Number 416T2003-15. To ensure that the escape slide release mechanism operates properly, accomplish the following, unless already accomplished:

A. Accomplish the inspection, test, and modification procedures in accordance with Boeing Service Bulletin 767-25-A0071, dated September 27, 1985, or later FAA-approved revisions, as follows:

1. For packboards that have been in service over twenty-one months on the effective date of this AD, accomplish the inspection and modification within the next three months after the effective date of this AD.

2. For all other packboards, accomplish the inspection and modification prior to the accumulation of twenty-four months in service.

B. All packboards must meet the test requirements of Boeing Service Bulletin 767-25-A0071, Part III.C., Figure 1, circle Note 4, after modification. Packboards not meeting these requirements must not be placed in service.

C. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this proposal who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 16, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Roger S. Young, Airframe Branch, ANM-120S; telephone (206) 431-2929. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-07-11 BOEING: Amendment 39-5285. Applies to Boeing Model 757 airplanes, line numbers 1 through 90, certificated in any category. Compliance is required within 30 days after the effective date of this amendment. To ensure proper door opening, accomplish the following, unless already accomplished:

A. Inspect the left and right side Number 1, 2, and 4 passenger doors to verify proper engagement of the upper pinch bolt, and reinstall, if necessary, in accordance with Boeing Service Bulletin 757-52A0019, dated February 27, 1986, or later FAA-approved revisions.

B. Alternate means of compliance or adjustment of compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this AD who have not already received copies of the service bulletin cited herein may obtain copies upon request from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Pliny Brestel, Airframe Branch, ANM-120S; telephone (206) 431-2931. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-07-12 PRATT & WHITNEY: Amendment 39-5267. Applies to PW JT9D-7R4G2 engines. Compliance is required as indicated unless already accomplished.

To prevent possible engine support clevis failure, accomplish the following:

(a) Remove P/N 5006482-01 engine support clevis on PW JT9D-7R4G2 at or before 3,000 cycles in accordance with PW SB JT9D-7R4-72-119, Revision 3, dated November 5, 1985, or FAA approved equivalent.

(b) Replace any engine support clevis with greater than 3,000 cycles prior to next flight.

NOTES: (1) For the purpose of this AD, the number of flight cycles equals the number of flights that involve an engine operating sequence consisting of engine starting, takeoff operation, landing and engine shutdown.

(2) The hourly life limit is not affected by this AD.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

SB JT9D-7R4-72-119, Revision 3, dated November 5, 1985, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Pratt & Whitney, Commercial Products Division, 400 Main Street, East Hartford, Connecticut 06108. These documents also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on April 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Diane Kirk, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7082.

86-07-13 AVCO LYCOMING DIVISION: Amendment 39-5265. Applies to Avco Lycoming ALF502L series turbofan engines.

Compliance is required within the next 50 hours time in service after the effective date of this AD unless already accomplished within the last 50 hours time in service, and thereafter at intervals not to exceed 100 hours time in service from the last inspection.

To prevent engine power loss due to release of fourth stage compressor vane airfoils into the compressor flow path, accomplish the following:

(a) Inspect the fourth stage compressor vane assemblies, identified by Avco Lycoming Part Number (P/N) 2-100-040-27, for vane cracking at the outer shroud in accordance with Avco Lycoming Service Bulletin (SB) Number ALF502L-72-0137, dated March 27, 1986.

(b) Remove from service, prior to further flight, those fourth stage compressor vane assemblies found with vane airfoils missing; or cracked or separated at the outer shroud.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, Burlington, Massachusetts, may adjust the compliance time specified in this AD.

Avco Lycoming SB Number ALF502L-72-0137, dated March 27, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Avco Lycoming Division, 550 South Main Street, Stratford, Connecticut 06497. These documents also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on April 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Jeff Blazey, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (617) 273-7090.

86-05-05 GATES LEARJET CORPORATION: Amendment 39-5248. Applies to the following Gates Learjet models and serial numbers:

MODELS	SERIAL NUMBERS
24D, 24D-A, 24E, 24F, 24F-A	218; 230 thru 357
25, 25B, 25C, 25D, 25F	059; 061; 066 thru 373
28	001 thru 005
29	001 thru 004
35, 35A	001 thru 570; 589 thru 600
36, 36A	001 thru 053; 055

Compliance as indicated in the body of the AD.

To eliminate the potential for a fire and explosion within the battery, caused by leaking fuel entering the battery vent, accomplish the following within the next 200 flight hours, unless already accomplished:

A. Relocate the battery inlet vent in accordance with instructions contained in Gates Learjet Corporation Service Bulletin (SB) 24/25-334A (for Models 24 and 25 series airplanes), SB 28/29-24-5A (for Models 28 and 29 series airplanes), or SB 35/36-24-10 (for Models 35 and 36 series airplanes), dated July 18, 1985, or later FAA-approved revisions.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the modification requirements of this AD.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office,

1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

This amendment supersedes Amendment 39-5161 (50 FR 43565; October 28, 1985), AD 85-22-04.

This amendment becomes effective April 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4419.

83-03-01 R1 BOEING: Amendment 39-4561 as amended by Amendment 39-5283. Applies to Model 727 series airplanes certificated in all categories listed in Boeing Service Bulletin No. 727-53-153, Rev. 1, or later FAA approved revisions.

Compliance required as indicated unless already accomplished.

To ensure the structural integrity of the forward entry doorway forward frame, accomplish the following:

A. Visually inspect the forward entry doorway frame for cracks in accordance with Boeing Service Bulletin No. 727-53-153, dated February 1, 1980, or later FAA-approved revisions, at the earlier of the times indicated in subparagraphs A.1. or A.2., below, and repeat the inspection at intervals not to exceed 3,700 landings:

1. Within the next 1,850 landings after March 11, 1983, or prior to accumulating 25,000 landings, whichever occurs later; or

2. Within the next 1,850 landings after the effective date of this amendment, or prior to accumulating 15,000 landings, whichever occurs later.

B. Any cracked structure is to be repaired prior to further flight in accordance with Boeing Service Bulletin No. 727-53-153, dated February 1, 1980, or later FAA approved revisions. Repair in accordance with Revision 2 or later FAA approved revisions, of the above service bulletin constitutes terminating action for the requirements of this AD.

C. Modification in accordance with Boeing Service Bulletin No. 727-53-153, dated February 1, 1980, or later FAA approved revisions, constitutes terminating action for the requirements of this AD.

D. Aircraft may be ferried to a maintenance base for repair in accordance with FAR 21.197 and 21.199.

E. For the purpose of this AD, and when approved by an FAA maintenance inspector, the number of landings may be computed by dividing each airplane's time in service by the operator's fleet average time from takeoff to landing for the aircraft type.

F. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1).

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may also be examined at the FAA, Northwest Mountain Region, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-4561 became effective March 11, 1983.

This Amendment 39-5283 becomes effective May 16, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Stanton R. Wood, Airframe Branch, ANM-120S; telephone (206) 431-2924. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-01-51 R1 BOEING: Amendment 39-5269. Applies to all Model 747 series airplanes equipped with General Electric CF6 engines, certificated in any category. To prevent accumulation of flammable fluid in the engine strut, which constitutes a fire hazard, accomplish the following, unless already accomplished:

1. Within the next 72 hours time-in-service, inspect and, if necessary, clear the engine strut drains in accordance with the procedures specified in Chapter 71-71-00 of Boeing Maintenance Manual for the Boeing Model 747 airplanes equipped with General Electric CF6 engines. Repeat these inspections at intervals not to exceed 1,000 hours time-in-service. Report results of inspections to FAA, Northwest Mountain Region, Seattle Aircraft Certification Office, Propulsion Branch, ATTN: Kanji Patel, ANM-140S, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

2. The repetitive inspections required by paragraph 1., above, may be terminated upon the accomplishment of the following:

A. For Group I and II airplanes, as defined in Boeing Service Bulletin 747-71-2146, dated November 24, 1978, accomplish the replacement of the inboard and outboard pylon drain lines only, as shown in Figures 2 and 3, respectively, of that service bulletin or later FAA-approved revisions.

NOTE: The portion of this service bulletin pertaining to "Strut Pylon Drain Line Engine Tube Replacement," Figure 1, has been superseded by Boeing Service Bulletin 747-71-2155, Revision 3, dated September 28, 1984.

B. For Group I airplanes, as defined in Boeing Service Bulletin 747-71-2155, Revision 3, dated September 28, 1984, accomplish replacement of the engine strut aft drain and incorporate the bracket/heat shield, in accordance with Work Package I described in that service bulletin, or later FAA-approved revisions; and install forward drain fitting, drain tube, and fluid dam in accordance with Work Package II described in that same service bulletin, or later FAA-approved revisions.

C. For Group II airplanes, as defined in Boeing Service Bulletin 747-75-2155, Revision 3, dated September 28, 1984, install forward drain fitting, drain tube, and fluid dam in accordance with Work Package II described in that service bulletin, or later FAA-approved revisions.

D. For Group III airplanes, as defined in Boeing Service Bulletin 747-75-2155, Revision 3, dated September 28, 1984, accomplish replacement of the engine strut aft drain and

incorporate the bracket/heat shield, in accordance with Work Package I described in that service bulletin, or later FAA-approved revisions.

E. For Group I, II, and IV airplanes, as defined in Boeing Service Bulletin 747-75-2155, Revision 3, dated September 28, 1984, accomplish Work Package III, in accordance with that service bulletin, or later FAA-approved revisions, if the thrust reverser follow-up cable support bracket is found to interfere with the fluid dam.

3. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA Northwest Mountain Region.

4. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the inspections and, if necessary, cleaning of the engine strut drain lines.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 18, 1986, as to all persons, except those persons to whom it was made immediately effective by telegraphic AD T86-01-51, issued on January 9, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Kanji K. Patel, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office; telephone (206) 431-2973. Mailing addresss: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

MCDONNELL DOUGLAS
Airworthiness Directive
Revision
VOLUME II

85-01-02 R1 McDONNELL DOUGLAS: Amendment 39-4978 as amended by Amendment 39-5241. Applies to Model DC-9 and C-9 (Military) series airplanes, Fuselage Numbers 1 through 1087, certificated in any category.

Compliance required as indicated, unless previously accomplished.

To detect fatigue cracks and prevent structural failure of the fuselage cabin aft ventral pressure bulkhead, P/N 5910130 (and rework drawing numbers 5924597 and 5924350), accomplish the following:

A. Except for those airplanes that are subject to paragraph K., below, for airplanes with 15,000 or more landings on or after the effective date of this AD, within the next 700 additional landings or, for airplanes which have been inspected in accordance with AD 80-10-03, at the next inspection scheduled in accordance with AD 30-10-03 after the effective date of this AD, conduct visual and x-ray inspections in accordance with the instructions contained in Service Sketch 2934C, of McDonnell Douglas Service Bulletin 53-137, Revision 3, dated August 4, 1983.

NOTE: McDonnell Douglas Service Bulletin 53-137, Revision 3, dated August 4, 1983, is herein referred to as SB 53-137, R3.

B. If no cracks are found in the bulkhead web and doublers, in the areas of the doorjamb upper LH and RH corners, identified in Figure 1 of Service Sketch 2934C of SB 53-137 R3, for those corner areas:

1. At intervals not to exceed 2,000 landings from last inspection, repeat the visual inspections required by paragraph A., above; and

2. At intervals not to exceed 4,000 landings from last inspection, repeat the x-ray inspections required by paragraph A., above.

3. Repetitive inspections must be continued until terminating action in accordance with paragraph K., below, has been accomplished.

C. If cracks are found in the bulkhead web and doublers, for both Group I and II airplanes (as defined in SB 53-137, R3) accomplish the following:

1. For cracks found in the upper left and/or right bend radius, with no radial cracks, modify and inspect upper corners of bulkhead in accordance with paragraph 2.C. (Accomplishment Instructions) of SB 53-137, R3.

2. For new cracks found in the upper left bend radius, with no radial cracks and with Condition II modification

installed, modify and inspect corners of bulkhead per paragraph 2.D. of SB 53-137, R3.

3. For new cracks found in the upper right bend radius, with no radial cracks and with Condition I modification installed, modify and inspect upper corners of bulkhead in accordance with paragraph 2.E. of SB 53-137, R3.

4. For radial crack(s) found in any or all members of upper right corner, with or without bend radius cracks, modify and inspect corners of bulkhead in accordance with paragraph 2.I. of SB 53-137, R3.

5. For radial and/or bend radius crack(s), found in upper left and/or right corner(s) or portion of upper left and/or right bulkhead skin which exceeds the repairable limits of Conditions I through XVII, XX, or XXII through XXXIV (any noted conditions), or at operator's option for replacement of cracked parts that are within repairable limits, in lieu of repair modification, replace cracked parts in accordance with paragraph 2.J. of SB 53-137, R3. Reinstate repetitive inspections of the upper corners within 15,000 landings and at intervals noted in paragraphs B.1., B.2., and B.3., above.

6. For radial crack(s) found in any or all members of lower left and/or right corner radius (except P/N 5910130-9/-11 side channel), with or without cracks in the lower inboard tab portion of the P/N 5910130-3/-5 bulkhead skin, modify and inspect corners of bulkhead in accordance with paragraph 2.L. of SB 53-137, R3.

7. For crack(s) found in any or all members which extends below the lower edge of the P/N 5910130-37 channel forward vertical leg; replace cracked parts, and inspect corners in accordance with paragraph 2.N. of SB 53-137, R3. Reinstate repetitive inspections within 15,000 landings and at intervals noted in paragraphs B.1., B.2., and B.3., above.

8. For radial crack(s) found in P/N 5910130-3/-5 side bulkhead skin at one or more of the five lower inboard fasteners through the P/N 5910130-9/-11 side channel, install doublers and inspect lower corners in accordance with paragraph 2.O. of SB 53-137, R3.

9. For new radial crack(s) found in P/N 5910130-3/-5 side bulkhead skin at one or more of the five inboard fasteners through the P/N 5910130-9/-11 side channel, and preventive corner repair modification in accordance with Condition XIII has been installed, modify and inspect in accordance with paragraph 2.P. of SB 53-137, R3.

10. For new radial crack(s) found in any or all members of upper right corner, with or without bend radius cracks in P/N 5910130-13 doubler, and with Condition I modification installed, modify and inspect upper corners in accordance with paragraph 2.Y. of SB 53-137, R3.

D. If no crack(s) are found in the lower corners of the bulkhead web and doublers, for both Groups I and II airplanes (as defined in SB 53-137, R3); install preventive repair modification and repetitively inspect lower corners at 15,000 landing intervals in accordance with paragraph 2.M. of SB 53-137, R3. If preventive repair is not installed,

repetitively inspect at intervals in accordance with paragraph B., above.

E. If cracks are found in the bulkhead web and doublers in Group I airplanes, accomplish the following:

1. For radial crack(s) found in any or all members of upper left or both upper left/right corners, with or without bend radius cracks, modify and inspect corners of bulkhead in accordance with paragraph 2.F. of SB 53-137, R3.

2. For new radial crack(s) found in any or all members of upper right corners, with or without bend radius cracks, and with Condition XXII modification installed, modify and inspect corners of bulkhead in accordance with paragraph 2.Q. of SB 53-137, R3.

3. For radial crack(s) found in P/N 5910130-13 doubler at upper left and/or right corner running along heel line of P/N 5910130-95 left and/or -96 right door stop angle, with or without radial cracks in any or all member of upper left and/or right corners, and with or without crack(s) in upper left and/or right bend radius of the forward flange of P/N 5910130-13 doubler, modify and inspect upper corners of bulkhead in accordance with paragraph 2.T. of SB 53-137, R3.

4. For new radial crack(s) found in any or all members of upper left corner, with or without bend radius cracks, and with Condition V modification installed, modify and inspect upper corners of bulkhead in accordance with paragraph 2.V. of SB 53-137, R3.

5. For new radial crack(s) found in any or all members of upper left corner, with or without bend radius cracks in P/N 5910130-13 doubler, and with Condition II modification installed, modify and inspect upper corners in accordance with paragraph 2.W. of SB 53-137, R3.

F. If no crack(s) are found in the bulkhead web and doublers in Group I airplanes, the interim crack preventative repair modification may be installed and the upper corners repetitively inspected at 15,000 landing intervals in accordance with paragraph 2.G. of SB 53-137, R3. If preventive repair modification is not installed, repetitively inspect at intervals specified in accordance with paragraph B., above.

G. If cracks are found in the bulkhead web and doublers for Group II airplanes, accomplish the following:

1. For radial crack(s) found in any or all members of upper left or both upper left/right corners, with or without bend radius cracks, modify and inspect corners of bulkhead in accordance with paragraph 2.H. of SB 53-137, R3.

2. For new radial crack(s) found in any or all members of upper right corner, with or without bend radius cracks, and with Condition IV modification installed, accomplish paragraph 2.R. of SB 53-137, R3.

3. For new radial crack(s) found in any or all members of upper left corner, with or without bend radius cracks, and with Condition V modification installed, accomplish paragraph 2.S. of SB 53-137, R3.

4. For radial crack(s) found in P/N 5910130-13 doubler, at upper left and/or right corner running along heel line of P/N 5910130-95/-96, side door stop angle, with or

without radial cracks in any or all members of upper left and/or right corners, and with or without crack(s) in upper left and/or right bend radius of forward flange of P/N 5910130-13, doubler, modify and inspect corners of bulkhead in accordance with paragraph 2.U. of SB 53-137, R3.

5. For radial crack(s) found in any or all members of upper left corner, with or without bend radius cracks in 5910130-13 doubler, and with Condition II modification installed, modify and inspect upper corners in accordance with paragraph 2.X. of SB 53-137, R3.

H. If no crack(s) are found in the bulkhead web and doublers in Group II airplanes, the interim crack preventive modification may be installed and the upper corners repetitively inspected at 15,000 landing interval in accordance with paragraph 2.K. of SB 53-137, R3. If preventive repair modification is not installed, repetitively inspect at intervals specified in accordance with paragraph B., above.

I. McDonnell Douglas DC-9 Service Bulletin A53-144, or later FAA approved revisions, must be accomplished within 18 months after the effective date of this AD.

J. For aircraft modified per DC-9 Service Bulletin 53-139 (basic), or production equivalent, accomplish McDonnell Douglas DC-9 Service Bulletin 53-157 within 18 months after effective date of this AD.

K. For airplanes previously modified in accordance with DC-9 Service Bulletin 53-139 (Original Issue or Revision 1), or production equivalent, accomplish modification of the pressure bulkhead in accordance with Part 2 of the Accomplishment Instructions of DC-9 Service Bulletin 53-165 prior to the accumulation of 15,000 cycles after accomplishment of the modification or aircraft delivery (as applicable) or prior to the accumulation of the 5,400 landings after the effective date of Amendment 39-5241, whichever occurs later. Accomplishment of the modification referenced above constitutes terminating action for the requirements of this AD.

L. For airplanes not previously modified in accordance with DC-9 Service Bulletin 53-139 (Original Issue and Revision 1), or production equivalent, accomplishment of modifications in accordance with DC-9 Service Bulletin 53-166, Revision 1, dated January 31, 1983, or later FAA-approved revision, constitutes terminating action for the requirements of this AD.

M. Previous accomplishment of any rework or inspection(s), or portion(s) thereof, which is outlined in McDonnell Douglas DC-9 Service Bulletin 53-137, Revision 1, dated December 6, 1979, required by AD 80-10-03, Amendment 39-3769, effective May 15, 1980, which is also outlined in McDonnell Douglas DC-9 Service Bulletin 53-137, Revision 2, or SB 53-137, R3, provided for in AD 80-10-03, may be considered an equivalent to that requirement of this AD.

N. The inspections and modifications required by this AD need not be accomplished if, after the effective date of this AD, the aircraft is operated without cabin pressurization and a placard is installed in the cockpit, in full view of the pilots, stating:

"OPERATION WITH CABIN PRESSURIZATION IS PROHIBITED."

O. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of modifications required by this AD.

P. Upon the request of an operator, an FAA Maintenance Inspector, subject to prior approval by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the repetitive inspection intervals of the operator if the request contains substantiating data to justify the increase for that operator.

Q. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-750 (54-60). These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This supersedes AD 80-10-03, Amendment 39-3769 (45 FR 31052; May 15, 1980).

Amendment 39-4978 became effective February 14, 1985.

This Amendment 39-5241 becomes effective March 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Michael N. Asahara, Sr., Aerospace Engineer, Airframe Branch, ANM-122L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 548-2826.

PRATT & WHITNEY
Airworthiness Directive
Revision
VOLUME II

86-02-52 R1 PRATT & WHITNEY: Amendment 39-5264. Applies to Pratt & Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR model turbofan engines overhauled by Aerothrust Corporation of Miami, Florida, with the following serial numbers:

648779	654034	657429	667109	688132
649019	654072	657480	667127	688418
649218	654344	657591	667130	688440
649255	654595	657699	667144	688441
649281	654799	657714	667203	688444
649283	654806	657742	667204	688445
649285	654857	665873	667216	688473
649347	654909	666661	674268	688504
649581	654975	666685	674465	688505
649655	655366	666716	674564	688509
653453	655813	666738	674611	688839
653509	655920	666764	687309	688844
653512	655967	666804	687323	689877
653526	656047	666850	687413	689935
653571	656089	666853	687715	696688
653645	656120	666878	687727	696720
653699	656854	666976	687806	702937
653838	656975	666980	687836	702938
653854	657066	666989	687840	702975
653992	657112	666993	687841	
653996	657201	667042		
	657258	667059		

Compliance is required as indicated unless already accomplished.

To prevent fracture of the combustion chamber which could result in an uncontained engine failure, accomplish the following:

NOTES: 1) For the initial inspection, time since inspection (TSI) is defined as hours or cycles since installation by Aerothrust. Thereafter, for the repetitive inspections, TSI is defined as hours or cycles since the last inspection.

2) For the initial inspection, the cumulative crack length at the 2-3 seam weld is that present at the time of installation by Aerothrust as determined by individual chamber x-ray film records on file at Aerothrust.

3) Investigation is continuing and pending the results, additional engine serial numbers may be added to this AD.

(a) Remove from service within the next 100 hours or 100 cycles time in service from the effective date of this AD, whichever occurs first, chambers with greater than 8 inches but less than or equal to 12 inches cumulative crack length at installation by Aerothrust.

(b) Remove from service, prior to further flight, chambers with greater than 12 inches cumulative crack length at installation by Aerothrust.

(c) Inspect combustion chamber 2-3 seam welds in accordance with PW Service Bulletin Number 5639, dated November 15, 1985, or FAA approved equivalent, per the following schedule:

(1) Inspect chambers with 3 inches or less cumulative crack length as follows:

(i) Prior to accumulating 2,000 hours or 1,500 cycles TSI, whichever occurs first; or

(ii) For chambers with greater than 1,900 hours or 1,400 cycles TSI on the effective date of this AD, inspect within the next 100 hours or 100 cycles time in service, whichever occurs first.

(2) Inspect chambers with greater than 3 inches but less than or equal to 6 inches cumulative crack length as follows:

(i) Prior to accumulating 1,500 hours or 1,000 cycles TSI, whichever occurs first; or

(ii) For chambers with greater than 1,400 hours or 900 cycles TSI on the effective date of this AD, inspect within the next 100 hours or 100 cycles time in service, whichever occurs first.

(3) Inspect chambers with greater than 6 inches but less than or equal to 8 inches cumulative crack length as follows:

(i) Prior to accumulating 250 hours or 200 cycles TSI, whichever occurs first; or

(ii) For chambers with greater than 150 hours or 100 cycles TSI on the effective date of this AD, inspect within the next 100 hours or 100 cycles time in service, whichever occurs first.

(4) Chambers for which the cumulative crack length at installation by Aerothrust cannot be confirmed must be inspected within the next 100 hours or 100 cycles time in service, whichever occurs first.

(d) Reinspect chambers, thereafter, in accordance with the appropriate inspection interval of paragraphs (c)(1) through (c)(3), as determined by the crack length at last inspection or at installation by Aerothrust, whichever crack length is greater. Remove from service, prior to further flight, any chambers with greater than 8 inches cumulative crack length at reinspection.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, New England Region.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

Pratt & Whitney Service Bulletin Number 5639, dated November 15, 1985, identified and described in this document is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Pratt & Whitney, East Hartford, Connecticut. This document may also be examined at the Office of the Regional Counsel, Federal Aviation Administration, Rules Docket Number 86-ANE-3, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective April 14, 1986, as to all persons except those persons to whom it was made immediately effective by TAD T86-02-52, issued January 29, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

James Jones, Engine Certification Branch, Engine Certification Office, ANE-140, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7121.

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86-08-06 GARRETT TURBINE ENGINE COMPANY (GTEC, formerly AiResearch Manufacturing Company of Arizona): Amendment 39-5275. Applies to GTEC Model TPE331-25AA, -25AB, -25DA, -25DB, -25FA, -43A, -43BL, -47A, and -55B turboprop engines with Part Number 865037-10 through -70 second stage turbine stator seal plate assembly installed.

Compliance is required as prescribed in the body of the AD unless already accomplished.

To prevent interference between the second stage rotor and the second stage turbine stator seal plate assembly and possible uncontained failure of the second stage turbine rotor assembly, accomplish the following:

(a) Radiographically inspect the second stage turbine rotor and seal plate assemblies within the next 200 engine operating hours time in service after the effective date of this AD, or prior to the next 500 engine operating hours time in service after the last engine overhaul, whichever comes later, and at intervals not to exceed 300 engine operating hours thereafter. Inspect in accordance with procedures provided in Paragraph 2.A in Garrett Service Bulletin No. TPE331-72-0522 dated February 5, 1986.

(b) Remove from service prior to further flight warped second stage turbine stator seal plate assemblies which fail to meet the radiographic inspection standards. Replace with an assembly in serviceable condition.

NOTE: Garrett has also provided instructions for accomplishing an interim rotational check of the engine in Paragraph 2.A in Service Bulletin No. TPE331-72-0522. The FAA has approved and encourages operators to perform this inspection at 25 hour intervals until the radiographic inspection is accomplished; however, the rotational check is not mandatory.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Western Aircraft Certification Office, P.O. Box 92007, Los Angeles, California 90007-2007 may adjust the compliance times specified in this AD.

Garrett Service Bulletin No. TPE331-72-0522 dated February 5, 1986, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Garrett General Aviation Services Company, Department H65-1, Building 601AD, P.O. Box 29003, Phoenix, Arizona 85038. These documents also may be examined at the Office of the Regional Counsel, 86-ANE-10, Federal Aviation Administration, New England Region, Room 311, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on April 18, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Propulsion Section, ANM-174W, FAA, Northwest Mountain Region, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1360.

86-08-07 TELEDYNE CONTINENTAL MOTORS: Letter issued April 21, 1986. Applies to TSIO-520-BE reciprocating engines with the following serial numbers installed on Piper PA-46 (Malibu) airplanes:

ENGINE SERIAL NUMBERS

528026	528222	528233	528246
528085	528223	528234	528252
528205	528224	528235	528253
528208	528225	528236	528254
528215	528226	528237	528255
528216	528227	528238	528256
528217	528228	528239	528259
528219	528229	528240	528260
528220	528230	528242	528263
528221	528231	528243	

Prior to further flight, remove the engine driven fuel pump assembly (P/N 646571-1) and replace with fuel pump assembly (P/N 649374-1).

Upon request, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337.

This airworthiness directive is effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Robert R. Goodall, Aerospace Engineer, Propulsion Branch, ACE-140A, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337, telephone 404-763-7435.

PIPER
Airworthiness Directive
Revision
VOLUME I

82-16-05 R1 PIPER AIRCRAFT CORPORATION: Amendment 39-4459 as amended by Amendment 39-5278. Applies to Models PA-31 and PA-31-325 (Serial Numbers 31-2 through 31-8312019), PA-31-350 (Serial Numbers 31-5001 through 31-8452021), and PA-31-350-T1020 (Serial Numbers 31-8253001 through 31-8553002) equipped with Piper Part Numbers 455-301, 555-376, 555-511, or 555-366 turbocharger exhaust pipe couplings, certificated in any category.

Compliance: Required as indicated, unless already accomplished.

To prevent the possibility of an inflight powerplant fire due to a turbocharger exhaust pipe coupling failure, accomplish the following:

(a) Within the next 100 hours time-in-service after the effective date of this AD or 100 hours time-in-service since the last inspection per this AD prior to its revision, whichever is first, and thereafter at intervals not exceeding 100 hours time-in-service, inspect the multi-segment Piper P/N 455-301, 555-376, 555-511, 555-366, turbocharger exhaust pipe couplings by accomplishing the following:

(1) Gain access to the turbocharger exhaust systems.

(2) Remove the turbocharger exhaust couplings and tailpipe.

NOTE: Exercise caution to prevent spreading or forcing the coupling beyond its normal open position when removing or installing the coupling.

(3) Using either a dye penetrant inspection method or a light and a 10-power magnifying glass, accomplish the following:

(i) Inspect coupling for cracks, spreading of "V" band segments, failed spot welds, and indication of exhaust flanges bottoming in couplings.

(ii) Inspect the condition of the coupling clamp for bending, overstress, thread damage, cracks or other obvious damage.

(iii) Inspect turbocharger to turbocharger exhaust tailpipe connection area for proper mating of surfaces.

(iv) Inspect tailpipe and turbocharger flanges for cracks and distortion. Remove carbon deposits from mating flanges before reassembly.

(v) Reinstall serviceable couplings using the applicable torque and procedures described in paragraph (b).

NOTE: Initial and repetitive inspection are not required for coupling Part Numbers 557-584 and 557-369.

(b) Prior to further flight, replace any cracked or otherwise damaged couplings found during any inspection required by paragraph (a) of this AD with applicable couplings specified below:

MODEL	PIPER COUPLING P/N (AEROQUIP P/N)	TORQUE
PA-31	455-301 (4404-376M)	40-50 in.-lbs.
	555-376 (MVT68049-375H) (MVT68049-375D)	40-50 in.-lbs.
	555-511 (MVT69861-377M)	40-50 in.-lbs.
	557-584 (NH1005834-10)	30-35 in.-lbs.
PA-31-325	555-511 (MVT69861-377M)	40-50 in.-lbs.
	557-584 (NH1005834-10)	30-35 in.-lbs.
PA-31-350	555-366 (MVT68049-450M)	45-55 in.-lbs.
	557-369 (NH1005798-10)	30-35 in.-lbs.

Install couplings in accordance with the instructions contained in Piper Service Bulletin No. 644C, dated December 3, 1985, ensuring that the tailpipe and turbocharger flanges are properly aligned and that the wrench socket is properly aligned to prevent bolt sideload.

(c) Piper Aircraft Corporation Service Bulletin No. 644C dated December 3, 1985, pertains to the subject matter of this AD.

(d) The time-in-service between the repetitive inspections required herein may be adjusted up to plus 25 percent of any specified inspection interval required by this AD to facilitate accomplishing these inspections concurrent with other scheduled maintenance on the airplane.

(e) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(f) An equivalent method of compliance with this AD if used must be approved by the Manager, Atlanta Aircraft Certification Office, FAA, 1075 Inner Loop Road, College Park, Georgia 30337.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Piper Aircraft Corporation, 2926 Piper Drive, Vero Beach, Florida 32960 or the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective April 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Gil Carter, ACE-140A, Atlanta Aircraft Certification Office, FAA, 1075 Inner Loop Road, College Park, Georgia 30337, telephone (404) 763-7435.

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Correction Avco Corporation, Lycoming Division - Corrects AD 8
25-06: Remove from Book I, insert in Book II.

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Correction Bell, Texas Helicopter, Hawkeye, Teryjon, Continental Copters - Corrects AD 86-06-08

Correction Gates Learjet - Corrects AD 86-05-05

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MESSERSCHMITT - BOLKOW - BLOHM
Airworthiness Directive
VOLUME I

86-09-03 MESSERSCHMITT-BOLKOW-BLOHM: Amendment 39-5294. Applies to Model BK 117A-3 helicopters, certificated in any category that are equipped with tail rotor blades P/N 117-31742, S/N's 63 up to and including 115.

Compliance is required as indicated, unless previously accomplished.

To detect or prevent possible in-flight separation of a tail rotor blade leading edge erosion protective shell or plate, accomplish the following:

(a) For tail rotor blades with less than 5 hours time in service on the effective date of this AD, remove blades before further flight.

(b) For tail rotor blades with 5 or more hours time in service on the effective date of this AD, before each flight, inspect the erosion protective shell and plate for separation in accordance with the MBB BK-117 maintenance manual, Section 34-2, paragraph 2a or b.

(c) If bonding separation exceeds permissible limits stated in Section 34-2, paragraph 2c of the maintenance manual, remove the affected blade before further flight.

(d) Upon request, an equivalent means of compliance with this AD may be used when approved by the Manager, Aircraft Certification Office, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium, APO NY 09667-1011.

(e) The aircraft may be flown in accordance with FAR Sections 21.197 and 21.199 to a base where the tail rotor blades may be replaced.

The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to MBB Helicopter Corp., P.O. Box 2349, West Chester, Pennsylvania 19380. These documents may also be examined at the Office of the Regional Counsel, Federal Aviation Administration, Southwest Region, Room 158, Building 3B, 4400 Blue Mound Road, Fort Worth, Texas 76106.

This amendment becomes effective May 20, 1986.

FOR FURTHER INFORMATION CONTACT:

J. H. Major, Helicopter Policy and Procedures Staff, ASW-111, Aircraft Certification Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone number (817) 877-2549.

86-09-05 AVCO LYCOMING DIVISION: Amendment 39-5293. Applies to Avco Lycoming Division T5313B and T5317A turboshaft engines. Compliance is required as indicated unless already accomplished.

To prevent centrifugal compressor impeller rupture that can cause uncontained engine failure, accomplish the following in accordance with Avco Lycoming Service Bulletin (SB) 0052, Paragraph 2A and 2B, dated November 26, 1985, or FAA approved equivalent:

(a) Inspect centrifugal compressor impeller Part Number 1-100-078-08, upon meeting the criteria as stated in (1), (2), or (3) below, within the next 200 cycles in service from the effective date of this AD, and reinspect thereafter per paragraph (b):

(1) Impellers with 4,600 cycles or more in service, installed in T5313B engines.

(2) Impellers with 3,500 cycles or more in service, installed in T5313B engines, that have been previously installed and operated in a T5317A engine.

(3) Impellers with 3,500 cycles or more in service, installed in T5317A engines.

(b) Reinspect impellers with no cracks detected at intervals not to exceed 500 cycles in service since last inspection.

(c) Remove from service cracked impellers as follows:

(1) Prior to further flight, if cracks of 0.050 inch or greater are present.

(2) Within the next 10 cycles, if cracks of less than 0.050 inch are present.

Aircraft may be ferried in accordance with the provisions of FAR Sections 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance times specified in this AD.

Avco Lycoming SB Number 0052, dated November 26, 1985, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already

received this document from the manufacturer may obtain copies upon request to Avco Lycoming Division, 550 South Main Street, Stratford, Connecticut 06497. This document also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Room Number 311, Rules Docket Number 85-ANE-30, Monday through Friday between the hours of 8:00 a.m. and 4:30 p.m., except Federal holidays.

This amendment becomes effective on May 6, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

86-09-08 CESSNA: Amendment 39-5308. Applies to Models 208 and 208A (all Serial Numbers) airplanes certificated in any category.

Compliance: Required within the next 25 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent fuel starvation during takeoff due to improper positioning of the wing fuel tank selectors, accomplish the following:

(a) Install Cessna Part Number 2605030-1 placards and revise the Pilot's Operating Handbook and Airplane Flight Manual fuel system emergency procedures in accordance with the instructions in Cessna Caravan Service Bulletin CAB85-15 plus Attachment, and Cessna Owner Advisory CAB85-15A, both dated November 27, 1985, and operate the airplane in accordance with the instructions and warnings in these revised procedures.

(b) An equivalent means of compliance with this AD may be used if approved by the Manager, Aircraft Certification Office, ACE-115W, FAA, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

This amendment becomes effective on May 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Paul O. Pendleton, Aerospace Engineer, Aircraft Certification Office, ACE-140W, FAA, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4427.

86-09-11 SIKORSKY AIRCRAFT: Amendment 39-5298. Applies to Model S-76A helicopters certificated in any category.

Compliance is required as indicated unless already accomplished.

To preclude possible fatigue failures of the main and nose landing gear components, accomplish the following:

(a) Within the next 100 hours time in service after the effective date of this AD or before the accumulation of the component hours time in service listed below, whichever occurs later, replace the following components with new or airworthy components that have not exceeded the component listed hours time in service. Thereafter, replace the following components with new or airworthy components before the accumulation of the components hours time in service listed below:

COMPONENT	PART NUMBER	REPLACEMENT TIME/HOURS
Nose Landing Gear		
Fork	1944E60	42,500
Cylinder	1944E2, 1944C2	18,500
Retraction Actuator		
Cylinder Terminal	1944D201	28,800
Piston Rod	1944E204	25,000
Main Landing Gear		
Cylinder	1945E2	30,300
Axle Support Fitting	1945C12	9,600
Pin, Universal to Cylinder	1945C29	23,800
Drag Brace Rod End	1945E35	38,200
Upper Torque Arm	1945E46	37,900
Lower Torque Arm	1945C47	16,200
Axle	1945E85	7,200
Rod End, Positioning Rod	1945E235	19,100
Retraction Actuator		
Outer Cylinder	1945E302	7,100
Piston	1945E314	33,300
Piston Rod End	01-747-061	8,000

(b) Operators who have not kept records of hours time in service on individual component parts that were installed at time of issuance of the initial rotorcraft airworthiness certificate shall substitute rotorcraft hours time in service in lieu thereof.

(c) For purposes of complying with this AD, the hours time in service for individual components that were not installed at

the time of issuance of the initial rotorcraft airworthiness certificate must be determined from operator's rotorcraft records.

(d) Upon request, an alternate means of compliance which provides a level of safety equivalent to the requirements of this AD may be used when approved by the Manager, Boston Aircraft Certification Office, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7118.

(e) Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Boston Aircraft Certification Office, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7118, may adjust the compliance time specified in this AD.

NOTE: Sikorsky Alert Service Bulletin 76-32-20 applies to this subject.

This amendment becomes effective on May 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Cheryl McCabe, Airframe Branch, ANE-152, Boston Aircraft Certification Office, New England Region, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7112.

BEECH
Airworthiness Directive
Final Copy of Letter
VOLUME I

85-21-07 BEECH: Amendment 39-5295. Applies to Models 1900 and 1900C (all serial numbers) airplanes certificated in any category.

Compliance: Required within 10 hours time-in-service after receipt of this AD, unless already accomplished.

To ensure that required performance can be achieved for each approved combination of takeoff configuration, weight, altitude, and temperature, accomplish the following:

(a) Revise Beech Model 1900/1900C Pilot's Operating Handbook and FAA Approved Airplane Flight Manual (POH/AFM), P/N 114-590021-3, in accordance with Model 1900 and 1900C interim Addendum to POH/AFM, P/N 114-590021-3, dated October 21, 1985.

NOTE: The above cited interim Addendum was transmitted to Model 1900/1900C operators of record by Beech letter 52-85-1948, dated October 21, 1985.

(b) Conduct further operations in accordance with the POH/AFM so revised.

(c) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Wichita, Kansas 67209; telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Mr. Lou Gollin, Beech Aircraft Service Engineering, Department 52, Post Office Box 85, Wichita, Kansas 67201, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective May 6, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter from the FAA, dated October 22, 1985, and is identified as AD 85-21-07.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles J. Maple, Wichita Aircraft Certification Office, ACE-160W, Federal Aviation Administration, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4433.

GLASFLUGEL
Airworthiness Directive
Final Copy of Letter
VOLUME I

85-22-11 R1 GLASFLUGEL: Amendment 39-5291. Applies to "Standard Libelle" and "Standard Libelle-201B" (aircraft serial numbers 1 through 476), and H301 and H301B "Libelle" (all aircraft serial numbers) gliders.

Compliance is required as indicated unless already accomplished.

To prevent fatigue failure of the elevator linkage in the area of the welded seam at the base of the control stick which could result in loss of elevator control, accomplish the following:

(a) Within the next 10 hours time in service after the effective date of this AD, and thereafter at intervals not to exceed 10 hours time in service after the last inspection, unless compliance with paragraph (c) is already accomplished, visually inspect the elevator linkage, part number (P/N) 301-41-3/2, by means of a magnifying glass of at least 5 times magnification for cracks in the area of the welded seam at the base of the control stick.

(b) If a crack is found during the inspection required by paragraph (a) of this AD, before further flight, replace elevator linkage, P/N 301-41-3/2, with a serviceable part.

(c) Within the next 50 hours time in service after the effective date of this AD, but no later than July 1, 1986, replace the elevator linkage, P/N 301-41-3/2, with P/N 301-41-4/2, in accordance with Glasflugel Technical Notes Nos. 201-22, dated July 29, 1980, for Models "Standard Libelle" and "Standard Libelle-201B", and 301-31, dated July 29, 1980, for Models H 301 and H301B "Libelle" gliders, or an FAA-approved equivalent.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, telephone 513.38.30 ext. 2710.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Brussels Aircraft Certification Office, may adjust the compliance time specified in this AD.

Glasflugel Technical Notes Nos. 201-22 and 301-31, dated July 29, 1980, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Mr. Hansjoerg Streifender,

Bruelstrasse 12, 7318 Lenningen 2, Federal Republic of Germany. These documents also may be examined at Regional Counsel, ANE-7, FAA New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective May 6, 1986, as to all persons except those persons to whom it was made immediately effective by priority letters AD No. 85-22-11 and 85-22-11R1, issued October 30 and December 31, 1985, respectively, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, telephone 513.38.30 ext. 2710. or Richard B. Noll, ANE-152, Boston Aircraft Certification Office, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7111.

GATES LEARJET
Airworthiness Directive
Revision
VOLUME I

85-22-08 R2 GATES LEARJET CORPORATION: Amendment 39-5166 as amended by Amendment 39-5223 is further amended by Amendment 39-5296. Applies to Model 55 airplanes, serial numbers 55-003 through 55-086, except those incorporating Service Bulletin 55-27-7A, Airplane Modification Kit 55-84-7B, or Airplane Accessory Kit 55-83-4.

Compliance required as indicated after the effective date of this AD, unless already accomplished.

To prevent use of incorrect landing distances, accomplish the following:

A. Within the next 10 hours time-in-service after the effective date of this AD, insert the following information in the "FAA Approved Airplane Flight Manual for Gates Learjet 55," dated 3/17/81 (on 10/4/85, changes through Change 20, dated 5/10/84, were current):

1. Replace the paragraph "SPOILERS/AUTOSPOILERS/SPOILERONS" (pages 1-14) with:

"SPOILERS/SPOILERONS

(a) Spoilers

(1) During landings, a time delay in the spoiler circuit will cause increased spoiler extension times. For a normal landing (spoilerons operative with flaps below 25 degrees), full spoiler extension will require approximately 5 seconds. If the spoilerons are inoperative (AUG AIL light illuminated) or the SPOILERON circuit breaker (co-pilot's AC bus) is pulled, spoiler extension will require approximately 11 seconds. To account for the increase spoiler deployment times, the following corrections must be applied to the Actual Landing Distance obtained from the ACTUAL LANDING DISTANCE chart in Section V:

Normal Landing: Multiply distance by 1.04.

Spoilerons Inoperative: Multiply distance by 1.15.

(2) If the spoilers are inoperative during flight, the maximum operating altitude is limited to 41,000 feet.

(3) Do not extend spoilers with flaps extended while airborne.

(4) Do not extend spoilers, or operate with spoilers deployed, at speeds above VMO/MMO.

(b) Spoilerons

(1) Spoilerons may be inoperative. If spoileron preflight check fails, the SPOILERON circuit breaker (co-pilot's AC bus) must be pulled. When the SPOILERON circuit breaker is pulled, the spoilers and spoilerons will be inoperative in flight and landing spoiler deploy times will increase. With spoilerons inoperative, the maximum operating

altitude will be limited to 41,000 feet, and the Actual Landing Distance obtained from Section V must be increased by 15 percent (multiply by 1.15)."

2. Replace the first NOTE under the BEFORE TAXI Spoileron System Check (page 2-20) with the following:

"In the event the spoilerons fail the following check, SPOILERON circuit breaker (co-pilot's AC bus) - Pull. AUG AIL will illuminate. The spoilers and spoilerons will be inoperative in flight. The spoiler deploy time will be increased for landing. In this event, the maximum operating altitude is limited to 41,000 feet and the Actual Landing Distance obtained from Section V must be increased 15 percent (multiply by 1.15)."

3. The following factors must be applied to the Actual Landing Distance obtained from figure 5-57 (page 5-74):

"Normal Landing: Multiply distance by 1.04
Spoilers Inoperative: Multiply distance by 1.15."

B. In order to comply with the requirements of paragraph A., above, a copy of this AD may be used as a temporary amendment to the Airplane Flight Manual (AFM) and carried in the airplane as part of the AFM until replaced by Gates Learjet-published Temporary Flight Manual (TFM) Changes TFM 85-17, TFM 85-18, and TFM 85-19.

C. Temporary Flight Manual (TFM) Changes TFM 85-17, TFM 85-18, and TFM 85-19 may be removed from the AFM upon incorporation of either Gates Learjet Service Bulletin (SB) 55-27-7A (dated December 12, 1985), Airplane Modification Kit (AMK) 55-84-7B (dated December 12, 1985), or Airplane Accessory Kit (AAK) 55-83-4.

D. For airplanes equipped with thrust reversers modified in accordance with Gates Learjet SB 55-27-7 or AMK 55-84-7A, that modification (SB 55-27-7 or AMK 55-84-7A) must be removed within the next 30 days after the effective date of this AD.

E. For airplanes not equipped with thrust reversers, modification in accordance with Gates Learjet SB 55-27-7 or AMK 55-84-7A constitutes terminating action for the requirements of this AD.

F. Alternate means of compliance with provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-5166 became effective November 22, 1985.
Amendment 39-5223 became effective February 6, 1986.

3 85-22-08 R2

This Amendment 39-5296 becomes effective May 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Bennett L. Sorensen, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4433.

MCDONNELL DOUGLAS HELICOPTER
Airworthiness Directive
Revision
VOLUME I

79-23-03 R1 MCDONNELL DOUGLAS HELICOPTER COMPANY (HUGHES HELICOPTERS, INC.): Amendment 39-3608 as amended by Amendment 39-5282. Applies to Models 269A, 269A-1, 269B, and 269C, including military TH-55A, certificated in any category, equipped with tail rotor blades designated below:

GROUP I

P/N 269A6124
269A6124-9
269A6035
269A6035-9
269A6035-17
269A6035-19
269A6035-M
269ASK15
269-6100

GROUP II

P/N 269A6035-21, S/N's 0877 and prior
P/N 269A6035-23, S/N's 2710 and prior

Compliance required as indicated.

To detect possible corrosion, cracks, pitting, and other defects, inspect by visual or other specified means the affected tail rotor blades and replace or rework in accordance with the instructions specified in the applicable Hughes Service Information Notice (SIN) specified below:

SIN No. N-130, dated August 28, 1975, applies to Group I tail rotor blades.

SIN No. N-162, dated October 12, 1979, applies to Group II tail rotor blades.

(a) Inspect tail rotor blades with 500 or more hours time in service on the effective date of this AD within the next 100 hours additional time in service, or within six (6) calendar months from the effective date of this AD, whichever occurs earlier.

(1) For Group I blades, perform the visual and X-ray inspections, corrosion removal, casting procedure, metal treatment procedure, corrosion protection procedure, and fiberglass inspection - repair/spar exterior inspection procedure set forth in Parts I through VIII of the applicable Hughes SIN referenced above.

(2) For Group II blades, perform the visual inspection and/or corrosion protection procedure for the tail rotor blade spar interior set forth in Parts I and III of the applicable Hughes SIN referenced above.

(b) Inspect tail rotor blades with less than 500 hours time in service on the effective date of this AD prior to

accumulating a total time in service of 600 hours, or within six (6) calendar months from the effective date of this AD, whichever occurs earlier.

(1) For Group I blades, perform (a)(1) of this AD.

(2) For Group II blades, perform (a)(2) of this AD.

(c) For blades, P/N 269A6035-17 and 269A6035-19, with serial numbers listed at Part XI - Table 1, of the Hughes SIN referenced above, perform the Rockwell hardness test in accordance with Part XI of the Hughes SIN within the next 100 hours time in service after the effective date of this AD, unless already accomplished.

(d) Perform the inspections and procedures described in paragraphs (a)(1) and (a)(2) on Group I and Group II tail rotor blades, respectively, prior to the installation of spare blades or rotors on the aircraft.

(e) Perform the Rockwell hardness test specified in Part XI of Hughes SIN No. N-130, dated August 28, 1975, on spare blades or rotors with blades P/N 269A6035-17 and 269A6035-19, with serial numbers listed at Part XI - Table 1, of the referenced SIN, prior to the installation of these blades or rotors on the aircraft.

(f) Inspect tail rotor blades at intervals not to exceed twelve (12) months from the last inspection required by this AD, or twelve months from the effective date of this AD for blades identified in paragraphs (g)(1) and (g)(2) as specified:

(1) For Group I blades, conduct visual and X-ray inspections specified in Part X of SIN No. N-130 referenced above.

(2) For Group II blades, visually inspect per Part I of SIN No. N-162 referenced above.

(g) The repetitive inspections of paragraph (f) are applicable to the following blades, however, paragraphs (a), (b), and (d) of this AD need not be accomplished on:

(1) Group I blades marked with a green dot or white dot as identified in the preface of Hughes SIN No. N-130 referenced above.

(2) Group II blades marked with a 1/4 inch diameter white paint dot above the data plate on the rotor blade spar.

(h) Repair or rework eligible blades, as specified in the applicable Hughes SIN referenced above, prior to further flight. Blades that exceed limits specified in the Hughes SIN and are, therefore, not repairable must be marked in a conspicuous manner or destroyed, so as to prevent inadvertent return to service.

(i) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections required by this AD.

(j) Alternative inspections, modifications or other actions which provide an equivalent level of safety may be used when approved by the Manager, Western Aircraft Certification Office, ANM-170W, FAA, Northwest Mountain Region, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007.

Amendment 39-3608 superseded Amendment 39-2368 (42 FR 740), AD 75-20-01.

Amendment 39-3608 became effective November 19, 1979.

3 79-23-03 R1

This Amendment 39-5282 becomes effective May 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Jerry Sullivan, Aerospace Engineer, Airframe Section, ANM-172W, Western Aircraft Certification Office, Northwest Mountain Region, FAA, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007, telephone (213) 297-1166.

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BOOK 2
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N O T I C E

The 1986 edition of the Summary of Airworthiness Directives is now being published. Renewal Notices have been mailed. Distribution of the Summary and back issues of the biweeklies should begin about mid-June 1986. Continuing coverage of biweekly editions is assured until the new subscriptions are delivered.

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AVCO LYCOMING
Airworthiness Directive
VOLUME I

86-10-04 AVCO LYCOMING: Amendment 39-5299. Applies to Avco Lycoming Model LTS101-600A-2, -600A-3, -650A-2, -650B-1, -650B-1A, -650C-2, -650C-3, -650C-3A, -750A-1, -750A-3, -750B-2, and -750C-1 turboshaft; and LTP101-600A-1A, and -700A-1A turboprop engines.

Compliance is required on or before June 1, 1986, for engine models LTS101-600A-2, -600A-3, and -750C-1; and on or before September 30, 1986, for all other affected LT101 series engine models, unless already accomplished.

To prevent the failure of a gas producer (G.P.) blade due to fatigue cracking from excessive vibratory stresses, incorporate G.P. blade dampeners in accordance with Avco Lycoming Service Bulletin (SB) Number LT101-72-50-0079, Revision 1, dated April 21, 1986, or FAA approved equivalent.

Aircraft may be ferried in accordance with the provisions of FAR Sections 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance dates specified in this AD.

Avco Lycoming SB Number LT101-72-50-0079, Revision 1, dated April 21, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Avco Lycoming Williamsport Division, 652 Oliver Street, Williamsport, Pennsylvania 17701, Attention: Customer Support.

This document also may be examined at the Office of the Regional Counsel, Rules Docket Number 86-ANE-14, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

This amendment becomes effective on May 16, 1986.

FOR FURTHER INFORMATION CONTACT:

Robbin Goulet, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7089.

PRATT & WHITNEY CANADA
Airworthiness Directive
VOLUME I

86-10-05 PRATT & WHITNEY CANADA: Amendment 39-5266. Applies to Pratt & Whitney Canada (PWC) PT6A-42 turboprop engines.

Compliance is required as indicated unless already accomplished.

To prevent first stage compressor hub failure, and possible engine failure, accomplish the following:

Remove from service Part Number (P/N) 3030356 first stage compressor hub on PWC Engine Model PT6A-42 with engine Serial Numbers 93001 thru 93804 inclusive at or before 5,000 total cycles in accordance with PWC Service Bulletin (SB) 3002, Revision 12, dated November 9, 1983, or FAA approved equivalent.

NOTE: The 15,000 hour life limit remains unaffected by this airworthiness directive (AD).

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

PWC SB 3002, Revision 12, dated November 9, 1983, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Pratt & Whitney Canada, Longueuil, Quebec, Canada, J4K-4X9. This document also may be examined at the Office of the Regional Counsel, Rules Docket 85-ANE-29, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on June 5, 1986.

FOR FURTHER INFORMATION CONTACT:

Diane Kirk, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7082.

86-10-08 FAIRCHILD: Amendment 39-5315. Applies to Models SA226 and SA227 airplanes (Serial Numbers (S/N) SA226-T, S/N T201 through T275, T277 through T291; SA226-T(B), S/N T(B)276, T(B)292 through T(B)417; SA226-AT, S/N AT001 through AT074; SA226-TC, S/N TC201 through TC419; SA227-TT, S/N TT421 through TT555; SA227-AT, S/N AT423 through AT631B; SA227-AC, S/N AC406, AC415, AC416, and AC420 through AC632) airplanes certificated in any category.

Compliance: Required within the next 200 hours time-in-service or the next 30 calendar days, whichever comes first, after the effective date of this AD, unless already accomplished.

To prevent the elevator gust lock from engaging in flight, accomplish the following:

(a) Remove the elevator gust lock system components and install the alternate elevator gust lock and associated hardware in accordance with the instructions in Fairchild Aircraft Corporation Service Bulletin (S/B) 226-27-041 revised February 18, 1986, for the SA226 airplane models, or S/B 227-27-016 revised February 18, 1986, for the SA227 airplane models.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) An equivalent means of compliance may be used if approved by the Manager of the Airplane Certification Branch, ASW-150, Southwest Regional Office, FAA, Fort Worth, Texas 76101; telephone (817) 877-2070.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Fairchild Aircraft Corporation, Post Office Box 32486, San Antonio, Texas 78284, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on May 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Michelle Corning (817) 877-2239, Airplane Certification Branch, ASW-150, Southwest Region, FAA, Post Office Box 1689, Fort Worth, Texas 76101.

RAVEN (AEROSTAR)
Airworthiness Directive
VOLUME I

86-10-11 AEROSTAR (RAVEN): Letter issued May 21, 1986. Applies to Models S-40A, S-50A, S-55A, S-60A, S-66A, S-77A, RX-6, RX-7 and W100LB (all serial numbers) Hot Air Balloons certificated in any category.

Compliance: Required prior to further flight.

To preclude propane fuel leakage which could result in an uncontained fire in the balloon basket, accomplish the following:

(a) Visually inspect all of the fuel supply hose assemblies in the balloon to determine if any are identified by the part number code "FC321-06" followed by the date of manufacture code "3Q84" or "4Q84."

(b) Prior to further use, remove all hose assemblies with markings as specified in paragraph (a) of this AD or which do not contain markings specifically identifying the date of manufacture and replace these assemblies with airworthy parts.

(c) If the balloon does not contain any hose assemblies meeting the marking criteria specified in paragraph (a) or (b) of this AD, return the balloon to service after the appropriate entry is made in the aircraft maintenance records.

(d) An alternate method of compliance which provides an equivalent level of safety, may be used if approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Ty Krolicki, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone (312) 694-7032.

86-10-12 WYTWORNIA SPRZETU KOMUNIKACYJNEGO "PZL-RZESZOW": Letter issued May 21, 1986. Applies to Wytwornia Sprzetu Komunikacyjnego "PZL-RZESZOW" PZL-3S engines. Compliance required as indicated unless already accomplished. To prevent separation of the propeller from the aircraft, accomplish the following:

A. For engines with 275 hours or more since new, since overhaul or since compliance with AD 83-21-01, perform the following within 25 hours;

(1) Disassemble and visually inspect for distress of the rear crankshaft, rear counterweight, and rear counterweight pins.

(2) If any distress is found in the rear crankshaft, rear counterweight or rear counterweight pins, replace distressed parts with new parts and replace the propeller attachment bolts and dowel pins with new parts.

B. For engines with less than 275 hours since new, since overhaul, or since compliance with AD 83-21-01, perform A(1) and A(2) above prior to reaching 300 hours.

C. Perform A(1) and A(2) above within 300 hours since last accomplishment.

NOTE: Distress which has been observed during previous engine inspections includes wear, galling, pitting, scoring, and discoloration (blue color) of the counterweight pins.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR) Sections 21.197 and 21.199 to a base where the priority letter AD can be accomplished. Upon request, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, Engine Certification Office, Federal Aviation Administration, New England Region.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, Federal Aviation Administration, New England Region, may adjust the compliance time specified in this priority letter AD.

This airworthiness directive is effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Kenneth Steeves, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone 617-273-7097.

WYTWÓRNIA SPRZĘTU KOMUNIKACYJNEGO
"PZL-MIELEC"

Airworthiness Directive

VOLUME I

BRITISH AEROSPACE
Airworthiness Directive
Final Copy of Letter
VOLUME I

85-19-08 BRITISH AEROSPACE: Amendment 39-5313. Applies to Model 3101 (includes Model 3100) airplanes (serial numbers 601 through 666) certificated in any category.

Compliance: Required within seven days after receipt of this AD unless already accomplished.

To prevent the possibility of wing droop development and structural damage to the forward wing spar fuselage attachment and resulting loss of control of the airplane, accomplish the following:

(a) Remove wing-to-fuselage fairing panels numbers F19 and F20.

(b) Using as a reference BAe Model 3100 Illustrated Parts Catalog, Chapter 57-00-00 Figure 3 wing installation and using a suitable light source, visually inspect and repair as required item number 210 spigot (pin) Part No. 13781B7 (LH and RH), in accordance with the following criteria:

(i) If no gap exists between the spigot flange and the fuselage post, and if the locking bolt, washer and nut (items 205, 200 and 195 respectively) securing the spigot are in position and secure, install panel numbers F19 and F20 and return the airplane to service.

(ii) If little or no gap exists between the spigot flange and the fuselage post, and if the locking bolt, washer and nut are not secure, prior to further flight accomplish the following:

(A) Remove the loading from the wing to the fuselage joint and push the spigot (pin) into the spigot housing, and

(B) Install the locking bolt (Part No. A102-18D) with the head forward, the nut (Part No. A126 D66) and the washer (Part No. SP124D). Replace panels F19 and F20 and return the airplane to service.

(C) If the locking bolt (Part No. A102-18D) cannot be installed without rotation of the spigot, prior to further flight accomplish the repair procedures described in paragraph (c) of this AD.

(iii) If a large gap exists between the spigot flange and the fuselage post which results in loss of engagement with the spigot housing plate (item 215 LH and 220 RH), prior to further flight accomplish the repair procedures described in paragraph (c) of this AD.

(iv) If other structural deformation or damage is observed relating to improper spigot installation, prior to further flight obtain and accomplish the repair procedures in accordance with paragraph (c) of this AD.

(v) If the fuselage vertical post outboard bushing is found to be displaced, prior to further flight repair in accordance with the instructions in Figure 1 of British Aerospace Service Bulletin No. 57-A-JA 840917 dated January 25, 1985.

(c) Alternate methods of compliance and repair procedure may be used if approved by either the Manager of the FAA Brussels Aircraft Certification Office, FAA, AEU-100, c/o American Embassy, 1000 Brussels, Belgium, or the Manager of the Small Aircraft Certification Division, FAA, Central Region, ACE-100, 601 East 12th Street, Kansas City, Missouri 64106.

(d) Report, in writing, all defects found to the Manager, Small Aircraft Certification Division, FAA, Central Region, within 48 hours of the inspection. (Reporting approved by the Office of Management and Budget under OMB No. 2120-0056.)

This amendment becomes effective May 26, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 85-19-08, issued September 26, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. John Varoli, AEU-100, Brussels Certification Office, Europe, Africa, and Middle East Office, c/o American Embassy, 1000 Brussels, Belgium; telephone 513.38.30, extension 2710, or Mr. John Dow, ACE-109, Federal Aviation Administration, 601 East 12th Street, Kansas City, Missouri 64106; telephone (816) 374-6932.

86-07-02 BRITTEN-NORMAN: Letter issued March 28, 1986. Applies to all BN-2A Mark III Trislander Series (all Models and serial numbers) and BN-2 Islander Series (all Models and serial numbers) airplanes.

Compliance: Required prior to further flight after the effective date of this AD, unless already accomplished within the last 100 hours time-in-service (TIS), and thereafter at intervals not to exceed 100 hours TIS from the last inspection.

To preclude possible failure of the main gear, loss of control and possible catastrophic secondary failures to the airplane, accomplish the following:

(a) Inspect the junction of the torque link lug and upper case for cracks by visual means with 10-power magnifying glass or by dye penetrant.

(b) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where the inspection specified in paragraph (a) above can be accomplished.

(c) If cracked parts are found as a result of the inspection in paragraph (a) of this AD, prior to further flight replace the cracked parts with airworthy units.

(d) If the landing gear is replaced, only equal pairs of the same manufacturer are approved as replacement parts. Mixing of different manufacturer landing gears is not authorized.

(e) The intervals between the repetitive inspections required by this AD may be adjusted up to 10 percent of the specified interval to allow accomplishment of these inspections concurrent with other scheduled maintenance on the airplane.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Aircraft Certification Office, AEU-100, Europe, Africa and Middle East, FAA, c/o American Embassy, 1000 Brussels, Belgium.

CAA-UK Airworthiness Directive No. 005-03-86 issued March 14, 1986, which uses Britten-Norman Campaign Wire BN-2/SB173 as its Mandatory Service Bulletin dated March 14, 1986, pertains to the subject of this AD.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Ted Ebina, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium; telephone (322) 513.38.30; or Mr. Harvey Chimerine, FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; telephone (816) 374-6932.

CESSNA
Airworthiness Directive
Final Copy of Letter
VOLUME I

86-01-01 R1 CESSNA: Amendment 39-5316. Applies to Model T303 airplanes (all serial numbers) certificated in any category.

Compliance: Required as indicated, unless previously accomplished.

To prevent hazardous flight characteristics due to accumulations of ice at the unprotected junctures of the horizontal and vertical tail, accomplish the following:

(a) Prior to further flight on those airplanes approved for flight into icing conditions:

(1) Fabricate and install on the instrument panel in clear view of the pilot the following placard using letters of a minimum of 0.10 inch in height: "FLIGHT INTO KNOWN ICING PROHIBITED."

(2) Revise the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual Supplement "Known Icing Equipment," Section 2, Limitations, by deleting the first paragraph and replacing with the sentence: "Flight into known icing conditions is prohibited."

(3) Cover the airplane operating placard statement, "This airplane is approved for flight into icing conditions if the proper optional equipment is installed and operational" with opaque tape.

(4) Operate the airplane in accordance with the above limitations.

(b) Prior to further flight on all airplanes with or without approval for flight into icing conditions, revise the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual, section 3, Emergency Procedures "Icing - Inadvertent Encounter" to add the following information in addition to the current published inadvertent icing encounter procedures:

(1) "A small amount (1/8" to 1/4" thickness) of ice on the unprotected junctures of the horizontal and vertical tail may disturb the airflow in such a way as to cause rudder/rudder pedal oscillations, pitch oscillations and possibly an uncommanded nose down pitch change requiring a higher than normal pull force to counteract. This phenomenon varies with certain combinations of airspeed, power setting, flap deflections, sideslips and type of icing conditions.

(2) If this condition is encountered the following action will reduce or eliminate the rudder oscillation and/or pitch change.

(i) Reducing airspeed (by either establishing a climb or reducing power) will reduce or eliminate the condition.

(ii) Reducing power will reduce or eliminate the condition at any given airspeed.

(iii) Reducing flap deflection will reduce or eliminate the condition at any given airspeed.

(iv) Reducing sideslip (improving coordination) will reduce the tendency for the condition to develop."

(c) The Pilot's Operating Handbook and FAA Approved Airplane Flight Manual revision requirements of paragraphs (a)(2) and (b) of this AD may be accomplished by inserting a copy of this AD in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual. For additional information see Cessna Owner Advisory SNL85-60A, dated December 23, 1985.

(d) The requirements of Paragraphs (a), (b), and (c) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FARs) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(e) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the document referred to herein upon request to the Cessna Aircraft Company, Customer Services, Post Office Box 1521, Wichita, Kansas 67201 or the FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on May 28, 1986, to all persons except those persons to whom it has already been made effective by priority letter from the FAA dated January 2, 1986, or January 17, 1986, and is identified as AD 86-01-01 R1.

FOR FURTHER INFORMATION CONTACT:

Mr. Bennett L. Sorensen, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, ACE-160W, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4433.

UNITED INSTRUMENTS
Airworthiness Directive
Final Copy of Letter
VOLUME I

86-05-02 UNITED INSTRUMENTS, INC.: Amendment 39-5317. Applies to altimeter Part Numbers 5934, 5934A, 5934M, 5934AM, 5934P, 5934PA, 5934PM, 5934PAM, 5934D, 5934PD, 5934AD, and 5934PAD with the following serial numbers:

6C461 thru 6C999
7C000 thru 7C999
8C000 thru 8C999
9C000 thru 9C999
0D000 thru 0D999
1D000 thru 1D999
2D000 thru 2D869

NOTE 1: This AD is applicable to pressure sensitive altimeters that do not have encoding capabilities. The affected altimeters were manufactured after February 1, 1985.

Compliance: Required as indicated unless already accomplished.

To prevent possible erroneous altitude information from being displayed to the pilot, accomplish the following:

(a) For all altimeters that are installed in an aircraft, prior to further flight,

(1) Check each installed altimeter or check the aircraft's permanent maintenance record to determine if the altimeter falls within the Serial Number designations set forth in this AD. The owner/operator of the aircraft may make this check.

(2) If, as a result of this check, it is determined that the altimeter falls within these designations, check the altimeter by applying a slight outward pull on the adjustment knob while turning the knob and determine that the altitude indication pointers and the barometric pressure dial remain synchronized.

(3) The holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) may conduct this check on any airplane owned or operated by him. The person accomplishing this must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(4) If the altitude pointers do not move simultaneously with the barometric dial, prior to further flight remove the altimeter and return it to United Instruments, Inc., 3625 Comotara Avenue, Wichita, Kansas 67226, no later than July 1, 1986. Replacement altimeters must be serviceable units.

NOTE 2: It is recommended but not required by this AD, that the above check for synchronized movement be accomplished each time the altimeter barometric pressure dial is adjusted.

(b) Regardless of the results of the check specified in paragraph (a) of this AD, on or before July 1, 1986, for all affected altimeters installed in an aircraft, remove the altimeter and return it to United Instruments, Inc. at the above address. Replacement altimeters must be serviceable units.

(c) For all affected altimeters not installed in an aircraft, prior to further use but no later than July 1, 1986, return the altimeter to United Instruments, Inc., at the above address, for examination and modification as required.

(d) For each altimeter returned to United Instruments, Inc. per the instructions of paragraphs (a), (b) and (c) above, the examination and rework by United Instruments, Inc. will be identified by a yellow dot approximately 1/4 inch (6.4mm) diameter on the lower half of the rear case and the letter "M", approximately 1/8 inch (3.2mm) in height stamped on the data plate just before the word "altimeter". Units that have been reworked and so marked may be used as serviceable replacement parts.

(e) Aircraft may be flown in accordance with Federal Aviation Regulation (FAR) 21.197 to a location where this AD can be accomplished. Prior to dispatch, set the altimeter to field elevation and do not reset in flight.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

United Instruments Service Bulletin No. 2, dated February 24, 1986, pertains to the subject of this AD.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to United Instruments, Inc., 3625 Comotara Avenue, Wichita, Kansas 67226, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on May 28, 1986, to all persons except those to whom it has already been made effective by priority letter AD from the FAA dated February 28, 1986, and is identified as AD 86-05-02.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, ACE-130W, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

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The 1986 edition of the Summary of Airworthiness Directives is now being published. Renewal Notices have been mailed. Distribution of the Summary and back issues of the biweeklies should begin about mid-June 1986. Continuing coverage of biweekly editions is assured until the new subscriptions are delivered.

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PRATT & WHITNEY
Airworthiness Directive
VOLUME II

86-10-01 PRATT & WHITNEY: Amendment 39-5292. Applies to Pratt & Whitney (PW) JT9D-3A series turbofan engines.

Compliance is required as indicated, unless already accomplished.

To preclude second stage turbine disk failures resulting from rearward deflection of the second stage turbine nozzle guide vane inner shroud, inspect second stage nozzle guide vanes, Part Number (P/N) 770372, in accordance with the Accomplishment Instructions of PW Alert Service Bulletin (ASB) 5619, dated July 31, 1985, or FAA approved equivalent, per the following schedule:

(a) Inspect vanes for rearward deflection prior to accumulating 4,000 hours in service since new or since the vanes were refurbished, and reinspect thereafter per paragraph (b).

(b) Reinspect at the following intervals and until such time as the engine incorporates a complete set of new or refurbished vanes with zero time in service, at which time the requirements of paragraph (a) become applicable.

(1) Within the next 1,000 hours in service since last inspection, if the vane deflection is greater than 0.050 inches but not greater than 0.070 inches.

(2) Within the next 2,000 hours in service since last inspection, if the vane deflection is less than or equal to 0.050 inches.

(c) Remove from service, prior to further flight, vanes that have a rearward deflection greater than 0.070 inches.

NOTES: 1. Refurbished vanes are defined as vanes which have been operated in service and have subsequently been inspected and repaired to the specifications in Pratt & Whitney Engine Manual, P/N 646028.

2. Engine Manuals P/N 646028 and 770407 are identical for the JT9D-3A engine model and are both FAA approved.

Upon request, an equivalent means of compliance may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Aircraft may be ferried in accordance with the provisions of FAR Sections 21.197 and 21.199 to a base where the AD can be accomplished.

Upon submission of substantiating data by an owner or operator through the FAA maintenance inspector, the Manager,

Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

PW ASB 5619, dated July 31, 1985, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Pratt & Whitney, Publication Department, P.O. Box 611, Middletown, Connecticut 06457.

This document also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-22, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

This amendment becomes effective on June 5, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

86-10-02 CANADAIR, LTD.: Amendment 39-5310. Applies to all Model CL600-1A11 and CL600-2A12 airplanes, certificated in any category. Compliance is required as indicated, unless previously accomplished.

To ensure that flutter does not occur in the event of failure of any two hydraulic-controls systems:

A. Within 100 flight hours after the effective date of this AD, inspect the aileron and elevator flight dampers, replenish hydraulic fluid, or replace damper, if necessary, in accordance with Canadair Alert Wire TA 600-000-32/194, Revision 1, dated November 21, 1985.

B. Repeat the procedures referred to in paragraph A., above, at the following intervals:

1. Within 200 flight hours or six months, whichever occurs first for dampers that indicated green at the last inspection.

2. Within 100 flight hours or three months, whichever occurs first for dampers that indicated completely red at the last inspection.

C. An alternate means of compliance or adjustment of the compliance time which provides an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment inspections and/or modifications required by this AD.

All persons affected by this proposal who have not already received the appropriate service document from the manufacturer may obtain copies upon request to Canadair, Ltd., P.O. Box 6087, Montreal H3C 3G9, Canada. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Valley Stream, New York 11581.

This amendment becomes effective June 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. W. White or Mr. C. Kallis, Systems and Equipment Branch, ANE-173, New York Aircraft Certification Office, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6427.

MITSUBISHI
Airworthiness Directive
VOLUME II

86-10-03 MITSUBISHI: Amendment 39-5312. Applies to Model MU-300, Serial Numbers A003SA through A091SA; and Model MU-300-10, Serial Numbers A-1001SA through A1011SA; certificated in any category. To prevent cabin and engine compartment fires, accomplish the following:

A. Within 15 days after the effective date of this AD, affix a placard immediately adjacent to the engine START switch, worded as follows: "AFTER ENGINE(S) START, CONTINUED OPERATION WITH ANY ENGINE START OR DISENGAGE ANNUNCIATION IS PROHIBITED." This placard must consist of 0.1-inch red letters on a white background and may be of a plastic adhesive type, purchased locally. The placard, which is contained with Beech Aircraft Corporation MU-300/MU-300-10 Safety Communique, dated April 1986, is an acceptable placard. The placard may be removed from MU-300 airplanes when the Airplane Flight Manual for these airplanes has been changed in accordance with paragraph B., below, and the airplane has been modified in accordance with paragraph C., below. The placard may be removed from MU-300-10 airplanes when the airplane has been modified in accordance with paragraph C., below.

B. Within 15 days after the effective date of this AD, incorporate the following into the Normal Procedure Starting Engines Section of the MU-300 (Diamond I) Airplane Flight Manual: "CHECK STARTER DISENGAGEMENT AT APPROXIMATELY 32 PERCENT N2. IF STARTER HAS NOT DISENGAGED BY 45 PERCENT N2, PLACE THRUST LEVER IN CUTOFF POSITION AND REMOVE ALL ELECTRICAL POWER." This may be accomplished by including a copy of this AD in the airplane flight manual.

C. Within the next 200 hours time-in-service after the effective date of this AD, replace the airplane starter relay in accordance with Mitsubishi Service Bulletin SB 74-001, dated April 25, 1986 (for Model MU-300 airplanes), or SB 74-002, dated April 25, 1986 (for Model MU-300-10 airplanes), or later FAA-approved revisions.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the modifications required by this AD.

E. An alternate means of compliance which provides an acceptable level of safety may be used when approved by the Manager, Airplane Certification Branch, FAA, Southwest Region.

This amendment becomes effective on June 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Neil Christenson, FAA, Southwest Region, Airplane Certification Branch, ASW-150, P.O. Box 1689, Fort Worth, Texas 76101; telephone (817) 877-2599.

PRATT & WHITNEY CANADA
Airworthiness Directive
VOLUME II

86-10-05 PRATT & WHITNEY CANADA: Amendment 39-5266. Applies to Pratt & Whitney Canada (PWC) PT6A-42 turboprop engines.

Compliance is required as indicated unless already accomplished.

To prevent first stage compressor hub failure, and possible engine failure, accomplish the following:

Remove from service Part Number (P/N) 3030356 first stage compressor hub on PWC Engine Model PT6A-42 with engine Serial Numbers 93001 thru 93804 inclusive at or before 5,000 total cycles in accordance with PWC Service Bulletin (SB) 3002, Revision 12, dated November 9, 1983, or FAA approved equivalent.

NOTE: The 15,000 hour life limit remains unaffected by this airworthiness directive (AD).

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

PWC SB 3002, Revision 12, dated November 9, 1983, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Pratt & Whitney Canada, Longueuil, Quebec, Canada, J4K-4X9. This document also may be examined at the Office of the Regional Counsel, Rules Docket 85-ANE-29, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on June 5, 1986.

FOR FURTHER INFORMATION CONTACT:

Diane Kirk, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7082.

86-10-06 BRITISH AEROSPACE AIRCRAFT GROUP: Amendment 39-5303. Applies to all BAe Model HS 748 airplanes, certificated in any category. Compliance is required within 60 days after the effective date of this AD. To prevent the overwing escape hatches from opening and becoming detached during flight, accomplish the following, unless already accomplished:

A. Modify the overwing escape hatches in accordance with BAe Service Bulletin 52/115, dated July 4, 1984.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA. Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate document from the manufacturer may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective June 16, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SHORT BROTHERS
Airworthiness Directive
VOLUME II

86-10-07 SHORT BROTHERS, LTD.: Amendment 39-5302. Applies to certain Model SD3-60 airplanes, as described in Short Brothers, Ltd., Service Bulletin SD360-32-19, dated March 1985, certificated in any category.

To prevent the failure of the nose landing gear main fitting, accomplish the following within 90 days after the effective date of this AD, unless previously accomplished:

1. Inspect using eddy current methods and rework, as necessary, the main fitting of the nose landing gear in accordance with Dowty Rotol Service Bulletin 32-26SD, dated December 19, 1984.

2. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to Short Brothers Aircraft, 2011 Crystal Drive, Arlington, Virginia 22202-3702. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective June 16, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-10-08 FAIRCHILD: Amendment 39-5315. Applies to Models SA226 and SA227 airplanes (Serial Numbers (S/N) SA226-T, S/N T201 through T275, T277 through T291; SA226-T(B), S/N T(B)276, T(B)292 through T(B)417; SA226-AT, S/N AT001 through AT074; SA226-TC, S/N TC201 through TC419; SA227-TT, S/N TT421 through TT555; SA227-AT, S/N AT423 through AT631B; SA227-AC, S/N AC406, AC415, AC416, and AC420 through AC632) airplanes certificated in any category.

Compliance: Required within the next 200 hours time-in-service or the next 30 calendar days, whichever comes first, after the effective date of this AD, unless already accomplished.

To prevent the elevator gust lock from engaging in flight, accomplish the following:

(a) Remove the elevator gust lock system components and install the alternate elevator gust lock and associated hardware in accordance with the instructions in Fairchild Aircraft Corporation Service Bulletin (S/B) 226-27-041 revised February 18, 1986, for the SA226 airplane models, or S/B 227-27-016 revised February 18, 1986, for the SA227 airplane models.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) An equivalent means of compliance may be used if approved by the Manager of the Airplane Certification Branch, ASW-150, Southwest Regional Office, FAA, Fort Worth, Texas 76101; telephone (817) 877-2070.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Fairchild Aircraft Corporation, Post Office Box 32486, San Antonio, Texas 78284, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on May 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Michelle Corning (817) 877-2239, Airplane Certification Branch, ASW-150, Southwest Region, FAA, Post Office Box 1689, Fort Worth, Texas 76101.

MCDONNELL DOUGLAS
Airworthiness Directive
VOLUME II

86-10-09 MCDONNELL DOUGLAS: Amendment 39-5319. Applies to McDonnell Douglas Model DC-9, MD-80, and C-9 (Military) series airplanes, certificated in any category. Compliance required as indicated, unless previously accomplished.

To prevent inability to discharge the emergency engine fire extinguishing agent when necessary, accomplish the following:

A. Within 30 calendar days after the effective date of this Airworthiness Directive, conduct a one time visual inspection of the emergency engine fire shutoff switch cams for proper installation position, and reposition the cams, if necessary, in accordance with McDonnell Douglas Corporation Alert Service Bulletin A76-43, dated April 14, 1986, or later FAA-approved revisions.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the inspection or repositioning requirements of this AD.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Upon the request of an operator, an FAA Maintenance Inspector, subject to prior approval by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection times specified in this AD to permit compliance at an established inspection period of that operator if the request contains substantiating data to justify the change for that operator.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-750 (54-60). These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective June 9, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Ken Izumikawa, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6327.

86-10-10 BOEING: Amendment 39-5318. Applies to all Model 747 series airplanes, line number 1 through 607, certificated in any category. To prevent failure of the engine thrust control cable and loss of control of an engine, accomplish the following:

A. Within the next 10 days after the effective date of this AD, unless accomplished within the last 3,000 hours, inspect and, if necessary, replace the engine thrust control cables in accordance with Boeing Alert Service Bulletin 747-76A2065, dated February 28, 1986, or later FAA-approved revision.

B. Inspections and replacement of thrust control cables accomplished in accordance with Boeing Service Letter 747-SL-76-15-A, dated December 19, 1985, are considered equivalent to accomplishing the procedures required by paragraph A., above, except that corroded cables, with or without broken strands, must also be replaced.

C. Report results of inspections and the time intervals between the inspections to the FAA, Northwest Mountain Region, Seattle Aircraft Certification Office, Propulsion Branch, Attention: Mr. Kanji K. Patel, ANM-140S, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168; telephone (206) 431-2973.

D. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service bulletin from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective June 9, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Kanji K. Patel, Propulsion Branch, ANM-140S; telephone (206) 431-2973. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

T86-10-51 GENERAL ELECTRIC COMPANY: Telegram issued May 13, 1986. Applies to General Electric Company (GE) CT7-5A, -5A1, and -5A2 turbopropeller engines as installed in SAAB-Fairchild SF340A aircraft.

Compliance required prior to further flight unless already accomplished.

To prevent power turbine (PT) overspeed and resulting uncontained failure due to reaction of the fuel control to an erroneous PT speed signal during ground operation with the bottoming governor enabled, accomplish the following:

(A) Incorporate the following into the normal procedures section of the Aircraft Flight Manual (AFM). This may be accomplished by including a copy of this telegraphic AD in the AFM.

(1) Advance the aircraft condition lever (CL) from the "start" position to the "T/M lockout" position and return to the desired propeller governing position immediately following each engine start.

(2) Verify that the bottoming governor has been disabled immediately after accomplishing (1) above as follows: Position the CL in the propeller governing range, then retard the power lever (PL) toward the "reverse" position. A decrease in propeller speed verifies that the bottoming governor has been disabled. If disabling of the bottoming governor by performing a torque motor (T/M) lockout cannot be verified, retard the CL to the "unfeather" position. Do not dispatch until T/M lockout is accomplished and verified. Thereafter, CL manipulation to satisfy requirements in ground or flight operations is permissible.

(B) Aircraft/engine operation with the bottoming governor disabled must be conducted in accordance with the SF340A AFM, Supplement 10, and Aircraft Operations Manual (AOM), section 2.17, condition 3.19. While operating in this mode, available reverse thrust will be reduced, as noted in the SF340A AFM, page 4-50.

NOTE: GE Telex Number 1056-86 emphasizes pertinent information already contained in the SF340A AFM and/or AOM. The subject telex should be reviewed to highlight details and cautions pertaining to the bottoming governor and T/M lockout operation.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR) 21.197 and 21.199 to a base where the AD can be accomplished. Upon request, an equivalent means of compliance with the requirements of this telegraphic AD may be approved by the Manager, Engine

Certification Office, Aircraft Certification Division, New England Region.

This telegraphic airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Kirk E. Gustafson, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7095.

BRITISH AEROSPACE
Airworthiness Directive
Final Copy of Letter
VOLUME II

85-19-08 BRITISH AEROSPACE: Amendment 39-5313. Applies to Model 3101 (includes Model 3100) airplanes (serial numbers 601 through 666) certificated in any category.

Compliance: Required within seven days after receipt of this AD unless already accomplished.

To prevent the possibility of wing droop development and structural damage to the forward wing spar fuselage attachment and resulting loss of control of the airplane, accomplish the following:

(a) Remove wing-to-fuselage fairing panels numbers F19 and F20.

(b) Using as a reference BAe Model 3100 Illustrated Parts Catalog, Chapter 57-00-00 Figure 3 wing installation and using a suitable light source, visually inspect and repair as required item number 210 spigot (pin) Part No. 13781B7 (LH and RH), in accordance with the following criteria:

(i) If no gap exists between the spigot flange and the fuselage post, and if the locking bolt, washer and nut (items 205, 200 and 195 respectively) securing the spigot are in position and secure, install panel numbers F19 and F20 and return the airplane to service.

(ii) If little or no gap exists between the spigot flange and the fuselage post, and if the locking bolt, washer and nut are not secure, prior to further flight accomplish the following:

(A) Remove the loading from the wing to the fuselage joint and push the spigot (pin) into the spigot housing, and

(B) Install the locking bolt (Part No. A102-18D) with the head forward, the nut (Part No. A126 D66) and the washer (Part No. SP124D). Replace panels F19 and F20 and return the airplane to service.

(C) If the locking bolt (Part No. A102-18D) cannot be installed without rotation of the spigot, prior to further flight accomplish the repair procedures described in paragraph (c) of this AD.

(iii) If a large gap exists between the spigot flange and the fuselage post which results in loss of engagement with the spigot housing plate (item 215 LH and 220 RH), prior to further flight accomplish the repair procedures described in paragraph (c) of this AD.

(iv) If other structural deformation or damage is observed relating to improper spigot installation, prior to further flight obtain and accomplish the repair procedures in accordance with paragraph (c) of this AD.

(v) If the fuselage vertical post outboard bushing is found to be displaced, prior to further flight repair in accordance with the instructions in Figure 1 of British Aerospace Service Bulletin No. 57-A-JA 840917 dated January 25, 1985.

(c) Alternate methods of compliance and repair procedure may be used if approved by either the Manager of the FAA Brussels Aircraft Certification Office, FAA, AEU-100, c/o American Embassy, 1000 Brussels, Belgium, or the Manager of the Small Aircraft Certification Division, FAA, Central Region, ACE-100, 601 East 12th Street, Kansas City, Missouri 64106.

(d) Report, in writing, all defects found to the Manager, Small Aircraft Certification Division, FAA, Central Region, within 48 hours of the inspection. (Reporting approved by the Office of Management and Budget under OMB No. 2120-0056.)

This amendment becomes effective May 26, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 85-19-08, issued September 26, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. John Varoli, AEU-100, Brussels Certification Office, Europe, Africa, and Middle East Office, c/o American Embassy, 1000 Brussels, Belgium; telephone 513.38.30, extension 2710, or Mr. John Dow, ACE-109, Federal Aviation Administration, 601 East 12th Street, Kansas City, Missouri 64106; telephone (816) 374-6932.

UNITED INSTRUMENTS
Airworthiness Directive
Final Copy of Letter
VOLUME II

86-05-02 UNITED INSTRUMENTS, INC.: Amendment 39-5317. Applies to altimeter Part Numbers 5934, 5934A, 5934M, 5934AM, 5934P, 5934PA, 5934PM, 5934PAM, 5934D, 5934PD, 5934AD, and 5934PAD with the following serial numbers:

6C461 thru 6C999
7C000 thru 7C999
8C000 thru 8C999
9C000 thru 9C999
0D000 thru 0D999
1D000 thru 1D999
2D000 thru 2D869

NOTE 1: This AD is applicable to pressure sensitive altimeters that do not have encoding capabilities. The affected altimeters were manufactured after February 1, 1985.

Compliance: Required as indicated unless already accomplished.

To prevent possible erroneous altitude information from being displayed to the pilot, accomplish the following:

(a) For all altimeters that are installed in an aircraft, prior to further flight,

(1) Check each installed altimeter or check the aircraft's permanent maintenance record to determine if the altimeter falls within the Serial Number designations set forth in this AD. The owner/operator of the aircraft may make this check.

(2) If, as a result of this check, it is determined that the altimeter falls within these designations, check the altimeter by applying a slight outward pull on the adjustment knob while turning the knob and determine that the altitude indication pointers and the barometric pressure dial remain synchronized.

(3) The holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) may conduct this check on any airplane owned or operated by him. The person accomplishing this must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(4) If the altitude pointers do not move simultaneously with the barometric dial, prior to further flight remove the altimeter and return it to United Instruments, Inc., 3625 Comotara Avenue, Wichita, Kansas 67226, no later than July 1, 1986. Replacement altimeters must be serviceable units.

NOTE 2: It is recommended but not required by this AD, that the above check for synchronized movement be accomplished each time the altimeter barometric pressure dial is adjusted.

(b) Regardless of the results of the check specified in paragraph (a) of this AD, on or before July 1, 1986, for all affected altimeters installed in an aircraft, remove the altimeter and return it to United Instruments, Inc. at the above address. Replacement altimeters must be serviceable units.

(c) For all affected altimeters not installed in an aircraft, prior to further use but no later than July 1, 1986, return the altimeter to United Instruments, Inc., at the above address, for examination and modification as required.

(d) For each altimeter returned to United Instruments, Inc. per the instructions of paragraphs (a), (b) and (c) above, the examination and rework by United Instruments, Inc. will be identified by a yellow dot approximately 1/4 inch (6.4mm) diameter on the lower half of the rear case and the letter "M", approximately 1/8 inch (3.2mm) in height stamped on the data plate just before the word "altimeter". Units that have been reworked and so marked may be used as serviceable replacement parts.

(e) Aircraft may be flown in accordance with Federal Aviation Regulation (FAR) 21.197 to a location where this AD can be accomplished. Prior to dispatch, set the altimeter to field elevation and do not reset in flight.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

United Instruments Service Bulletin No. 2, dated February 24, 1986, pertains to the subject of this AD.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to United Instruments, Inc., 3625 Comotara Avenue, Wichita, Kansas 67226, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on May 28, 1986, to all persons except those to whom it has already been made effective by priority letter AD from the FAA dated February 28, 1986, and is identified as AD 86-05-02.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, ACE-130W, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

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ISSUE 86-11
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TD 4.10/4:

86-11-07 CESSNA: Amendment 39-5324. Applies to the following Model U206G and TU206G airplanes modified with Soloy Turbine Pac installations in accordance with Supplemental Type Certificate (STC) number SA2353NM:

CESSNA SERIAL NUMBER	SOLOY DATA PLATE NUMBER
U20603989	763-013
U20604266	763-001
U20604287	763-003
U20604881	763-014
U20605232	763-005
U20605567	763-002
U20605584	763-015
U20605745	763-008
U20605936	763-006
U20606065	763-007
U20606227	763-004
U20606381	763-011
U20606628	763-010
U20606768	763-012
U20606816	763-009

Compliance: Required as indicated in the body of the AD unless previously accomplished.

To preclude loss of the in-flight engine restart capability and to correct a condition that could cause erroneous navigation displays to the pilot, accomplish the following:

(a) For the above listed airplanes modified by Soloy STC SA2353NM, within the next 100 hours time-in-service (TIS) after the effective date of this AD, remove and replace the voltage regulator in accordance with the instructions contained in Soloy Service Bulletin (S/B) 04-763 dated March 29, 1985.

(b) For serial numbered airplanes U20604266, U20604287, U20605232, U20605567, U20605745, U20605936, U20606065, and U20606227 modified with Soloy STC SA2353NM, within the next 200 hours TIS after the effective date of this AD, modify the electrical system circuit breaker installation in accordance with the instructions contained in Soloy S/B No. 02-763 dated January 7, 1985.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent method of compliance with this AD may be used if approved by the Manager, Seattle Aircraft Certification Office, Federal Aviation Administration, Northwest Mountain

READEX FICHE best copy available

Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

All persons affected by this directive may obtain copies of the document referred to herein upon request to Soloy Conversions, LTD., 450 Pat Kennedy Way, S.W., Olympia, Washington 98502 or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on July 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Terry Rees, Systems and Equipment Branch, ANM-130S, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168; telephone (206) 431-2941.

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TD4.10/4:

86-11-05 GARRETT TURBINE ENGINE COMPANY (formerly the AiResearch Manufacturing Company of Arizona): Amendment 39-5325. Applies to all Model TFE731-2, -3, and -3R turbofan engines installed in aircraft certified in all categories equipped with fan rotor discs, part number 3073436-1, -2, -3, and -4 and 3072162-1, -2, -3, and -4.

Compliance is required as indicated unless already accomplished.

To prevent failure of the fan rotor disc due to fatigue cracking, accomplish the following:

(a) For fan rotor discs with 4000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service before reaching 4100 total operating cycles.

(b) For fan rotor discs with more than 4000 but with 6000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service within the next 100 operating cycles or prior to reaching 6005 total operating cycles whichever occurs first.

(c) For fan rotor discs with more than 6000 but with 8000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service within the next 5 operating cycles or prior to reaching 8001 total operating cycles whichever occurs first.

(d) For fan rotor discs with more than 8000 operating cycles on the effective date of this AD, remove fan rotor disc from service prior to further flight.

NOTES: (1) An operating cycle is considered as any engine operating sequence involving an engine start, at least one acceleration to 80 percent or more low pressure rotor speed, and an engine shutdown. An alternate method of determining cycles is to consider each airplane landing as one cycle. Fan rotor discs which have had their cyclic lives calculated by any other method are to have their cyclic lives recalculated using one of the two methods specified above.

(2) It has come to the attention of the FAA that some life limit log cards in the engine log book were incorrectly filled out in that the "dash number" of the disc part numbers (i.e., -1/-2/-3/-4) may have been left off. This should be corrected when the disc is next available to read the entire part number. All fan rotor discs are -1, -2, -3, or -4, and are affected by this AD. Fan rotor discs may be returned to GTEC for evaluation. Shipping information is contained in Garrett Alert Service Bulletin No. TFE731-A72-3328 Revision 2 dated April 4, 1986.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007 may adjust the compliance time specified in this AD.

This amendment supersedes priority letter AD 86-04-02 issued February 14, 1986.

There are two effective dates for this superseding AD.

For those operators who received priority letter AD 86-04-02, the effective date of this AD is the date of the priority letter AD (issued February 14, 1986).

The effective date of this AD is June 16, 1986, for operators with fan rotor disc part number 3073436-4 or 3072162-4 installed and for operators who did not receive the priority letter AD.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Aerospace Engineer, Propulsion Section, ANM-174W, FAA, Northwest Mountain Region, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1382.

86-12-01 BELL HELICOPTER TEXTRON, INC.: Letter issued June 6, 1986. Applies to all Bell Model 214ST helicopters, certificated in all categories.

Compliance is required prior to further flight after receipt of this AD, unless previously accomplished.

To prevent loss of main rotor collective control, visually inspect locking plate, Part Number (P/N) 214-010-232-101, in accordance with Part I of Bell Helicopter, Textron, Inc., Alert Service Bulletin (ASB) 214ST-86-36, dated May 23, 1986. If the locking plate is defective, check the torque of the lower collective hub nut, Part Number 214-010-407-001, in accordance with Part IV of ASB 214ST-86-36. At the next "A" check, inspect the locking plate in accordance with Part II of ASB 214ST-86-36. At each subsequent "A" check, inspect the locking plate in accordance with Part III of ASB 214ST-86-36. At the next "B" check and each subsequent "B" check, check the torque of the lower collective hub nut, P/N 214-010-407-1, in accordance with Part IV of ASB 214ST-86-36.

An alternate method of compliance or adjustment of the compliance time, which provices an equivalent level of safety, may be approved by the Manager, Helicopter Certification Branch, Aircraft Certification Division, FAA, Southwest Region.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Tom K. Henry, Helicopter Certification Branch, Aircraft Certification Division, ASW-170, FAA, Southwest Region, P.O. Box 1689, Fort Worth, Texas 76101, (817) 877-2595.

86-12-02 GARRETT TURBINE ENGINE COMPANY: Letter issued June 6, 1986. Applies to Garrett Turbine Engine Company Models TPE331-25AA, -25AB, -25DA, -25DB, -25FA, -43A, -43BL, -47A, -55B, -1, -2, -2UA, -3U, -3UW, -5, -6, -6A, -8, -10, -10G, -10R, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, -11U, -11UA, -12, and TSE331-3U turboprop and turboshaft engines.

Compliance required as indicated unless already accomplished.

To prevent the failure of the beryllium-copper nut on the turbine end of the tiebolt shouldered shaft and resultant major damage to the engine, accomplish the following:

(a) Engines with less than 100 engine operating hours since new or since installation of a turbine oil scavenge pump assembly for any reason are to have an initial oil sample taken and processed in accordance with the instructions provided in paragraph 2 of Garrett Service Bulletin No. TPE331-72-0530, dated May 9, 1986, (SB 0530) or FAA approved equivalent. This is to be accomplished at not less than 20 hours or more than 25 hours since new or after the installation of that pump assembly, or within 5 engine operating hours after receipt of this priority letter AD, whichever occurs later unless paragraph (e) below has been accomplished. Additional oil samples are to be taken and processed at not more than 25 operating hour intervals thereafter until a total of 100 operating hours has been accumulated since new or since installation of that pump assembly or until paragraph (e) below has been accomplished.

(b) Engines with 100 or more, but less than 500 engine operating hours since new or since installation of a turbine oil scavenge pump assembly for any reason on the date of receipt of this priority letter AD, are to have an oil sample taken and processed in accordance with the instructions provided in paragraph 2 of SB 0530 within the next 50 engine operating hours after receipt of this priority letter AD. This inspection is not required if paragraph (e) below has been accomplished.

NOTE: Garrett recommends that oil samples continue to be taken at regular intervals after accomplishment of this priority letter AD in accordance with the Spectrometric Oil Analysis Program (SOAP) described in Garrett Service Information Letter No. P331-97. While the FAA encourages these programs, they are not mandatory per this priority letter AD.

(c) If oil sample analysis indicates beryllium content of oil is in excess of 0.2 (two-tenths) parts per million, accomplish paragraph (e) before further flight.

(d) If oil sample analysis indicates beryllium content of oil is in excess of 0.1 (one tenth) parts per million, but equal to or less than 0.2 (two-tenths) parts per million, accomplish paragraph (e) within the next five engine operating hours.

(e) Engines which exceed the limits for beryllium content in the engine oil are to have the torsion shaft inspected, the turbine oil scavenge pump reworked or replaced, the beryllium-copper nut replaced, the turbine oil scavenge pump drive spur gear shaft assembly inspected, and the engine oil and filter changed in accordance with paragraph 2 of SB 0530 or FAA approved equivalent approved by the Manager, Western Aircraft Certification Office. The inspection of the torsion shaft does not apply to the following engine models which have "strain-gage" torque sensors:

TPE331-10G	TPE-331-10UG	TPE331-10UGR
TPE331-11U	TPE331-11UA	TPE331-12

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FARs) 21.197 and 21.199 to a base where the AD can be accomplished. Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007. Upon submi sion of substantiating data by an owner or operator, through a FAA Maintenance Inspector, the Manager, Western Aircraft Certification Office may adjust the compliance time specified in this AD.

This priority letter AD is effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Propulsion Section, Western Aircraft Certification Office, P.O. Box 92007, Los Angeles, California 90009-2007, telephone (213) 297-1382.

86-12-06 BELL HELICOPTER TEXTRON, INC.: Amendment 39-5329. Applies to Bell Helicopter Textron, Inc., Model 214ST helicopters, S/N's 18401, 18402, 18403, and 28101 through 28159, certificated in any category, equipped with main rotor yoke assembly P/N 214-010-105-001.

Compliance is required as indicated, unless already accomplished.

(a) To prevent failure of the main rotor yoke assembly, remove and replace the yoke assembly not later than 2,500 hours time in service. For yoke assemblies that have accumulated more than 2,450 hours time in service as of the effective date of this AD, remove and replace the yoke assembly within the next 50 hours time in service or by July 1, 1986, whichever comes first.

(b) Any alternate method of compliance which provides an equivalent level of safety with this AD may be used when approved by the Manager, Helicopter Certification Branch, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas 76106.

This amendment becomes effective July 1, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. T. K. Henry, Helicopter Certification Branch, ASW-170, Aircraft Certification Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone number (817) 877-2595.

MITSUBISHI
Airworthiness Directive
Revision
VOLUME I

85-04-03 R1 MITSUBISHI: Amendment 39-5006 as amended by Amendment 39-5328. Applies to Models MU-2B, -10, -15, -20, -25, -26, -26A, -30, -35, -36, -36A, -40, and -60 (Serial Numbers 1 through 753 inclusive, with or without the SA suffix) airplanes certificated in any category.

NOTE: The serial numbers of airplanes manufactured in the United States by MAI under Type Certificate A10SW are suffixed by "SA." The serial numbers of airplanes manufactured in Japan by MHI under Type Certificate A2PC have no suffix.

Compliance: Required as indicated, unless already accomplished.

To assure anti-ice capability of the pitot system, accomplish the following:

(a) Before further flight:

(1) Modify the pitot system of the affected model and serial numbered airplanes in accordance with the applicable service information as follows:

(i) Mitsubishi Heavy Industries Ltd., (MHI) Service Recommendation (S/R) No. 053, dated January 19, 1979, or

(ii) Mitsubishi Aircraft International, Inc. (MAI) S/R SR020/34-005, Revision A, dated July 31, 1979, or

(2) As an alternate means of compliance:

(i) Prior to September 1, 1988, modify the pitot system in accordance with paragraph (a)(1) of this AD, and

(ii) Before further flight:

(A) Fabricate and install a temporary placard(s) in full view of the pilot, using letters of minimum 0.10-inches in height which state:

(I) "FLIGHT IN KNOWN ICING CONDITIONS IS PROHIBITED"

(II) "TURN PITOT HEAT ON DURING FLIGHT IN VISIBLE MOISTURE"

(III) "Pilot and/or co-pilot airspeed indicators may display erroneous data after any (a) Flight in visible moisture, (b) Outside storage in rain without pitot covers, or (c) Washing of airplane. Refer to AFM for corrective action." and

(B) On the "TYPES OF OPERATION" placard located in the cockpit delete, using opaque tape, the words "ICING CONDITIONS", and

(C) Add the following information to the "LIMITATIONS" section of the FAA Approved Airplane Flight Manual (AFM) which supersedes any other AFM information which may be contradictory:

(I) "Flight in known icing conditions is PROHIBITED", and

(II) "TURN PITOT HEAT ON DURING FLIGHT IN VISIBLE MOISTURE", and

(III) "The pilot and/or co-pilot airspeed indicator may display erroneous data after any:

(a) Flight in visible moisture, or

(b) Period of outside storage in rain with no pitot covers installed, or

(c) Washing of airplane with no pitot covers installed. If erroneous airspeed indication(s) has (have) been observed, corrective action is required prior to next flight by draining the affected pitot line(s) and performing the "OPERATIONAL CHECK OF PITOT LINE" in accordance with the applicable Mitsubishi MU-2 maintenance manual."

(d) If erroneous airspeed indication(s) has (have) been observed, drain the affected pitot line(s) and perform the "OPERATIONAL CHECK OF PITOT LINE" in accordance with applicable Mitsubishi MU-2 maintenance manual.

(b) Insertion of a copy of this AD in the "LIMITATIONS" section of the AFM satisfies the requirements of paragraph (a)(2)(ii)(C) of this AD.

(c) The requirements of paragraphs (a)(2)(ii)(A), (a)(2)(ii)(B), and (b) of this AD may be accomplished by a holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) Remove the temporary placard(s) and AFM textual addition required by paragraph (a)(2)(ii) of this AD when the requirements of paragraph (a)(1) of this AD is accomplished.

(e) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(f) An equivalent method of compliance with this AD may be used on the MHI airplanes, if approved by the Manager, Western Aircraft Certification Office, ANM-170W, Federal Aviation Administration, Post Office Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007, and on the MAI airplanes, if approved by the Manager, Wichita Aircraft Certification Office, ACE-115W, Federal Aviation Administration, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this AD may obtain copies of the documents referred to herein upon request to Mitsubishi Heavy Industries, Ltd., 10, Oye-Cho, Minato-ku, Nagoya, Japan, or Beech Aircraft Corporation (licensee for Mitsubishi), 9709 East Central, Post Office Box 85, Wichita, Kansas 67201, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective June 12, 1986.

3 85-04-03 R1

FOR FURTHER INFORMATION CONTACT:

For MHI TC A2PC series airplanes manufactured in Japan: Mr. Jerry Sullivan, Aerospace Engineer, Western Aircraft Certification Office, ANM-172W, Federal Aviation Administration, Post Office Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1166. For MAI TC A10SW series airplanes manufactured in the U.S.: Mr. Robert Jackson, Systems and Equipment Engineer, Wichita Aircraft Certification Office, ACE-130W, Federal Aviation Administration, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4416.

72-06-05 R1 MARVEL SCHEBLER (Facet Aerospace Products Company): Amendment 39-1411 as amended by Amendment 39-1685 is further amended by Amendment 39-5338. Applies to Models MA-3, MA-3A, MA3-PA, MA-3SPA, MA4-SPA, MA4-5, MA4-5AA, MA-5, MA-5AA, MA-6AA and HA-6 carburetors used on various Franklin (Aircooled), Continental, Lycoming and Ranger engines, having one of the throttle arm and shaft configurations shown in Illustrations A, B, C, or D.

Compliance is required within 30 days after the effective date of the AD, unless already accomplished.

To present looseness or separation of the throttle arm, accomplish the following or any equivalent procedure approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

(1) Inspect the throttle arm to verify that it is bottomed against the shoulder on the throttle stop and positioned so that full throttle travel is obtained, and if not, loosen clamping screw and reposition arm and/or re-rig control system in accordance with airplane manufacturers' maintenance instructions to obtain these conditions.

(2) Inspect the throttle arm on Marvel Schebler MA-3, MA-3A, MA-3PA, MA3-SPA, and MA-4SPA carburetors to determine whether it has a spotfaced or milled flat for the head of the clamping screw. Replace any arm having a milled flat with one having a spotfaced flat. If not already installed, install a Marvel Schebler P/N A15-493 clamping screw (No. 10-24 x 5/8 slotted drilled fillister head) in the throttle arm. Torque the clamping screw to 20-28 in.-lb. and inspect the slot in the end of the arm for clearance. If the slot has closed so that no clearance remains, replace the arm and retorque to the above specifications. After the specified torque is established safety wire the throttle arm and clamping screw to the throttle stop as shown in Illustration A.

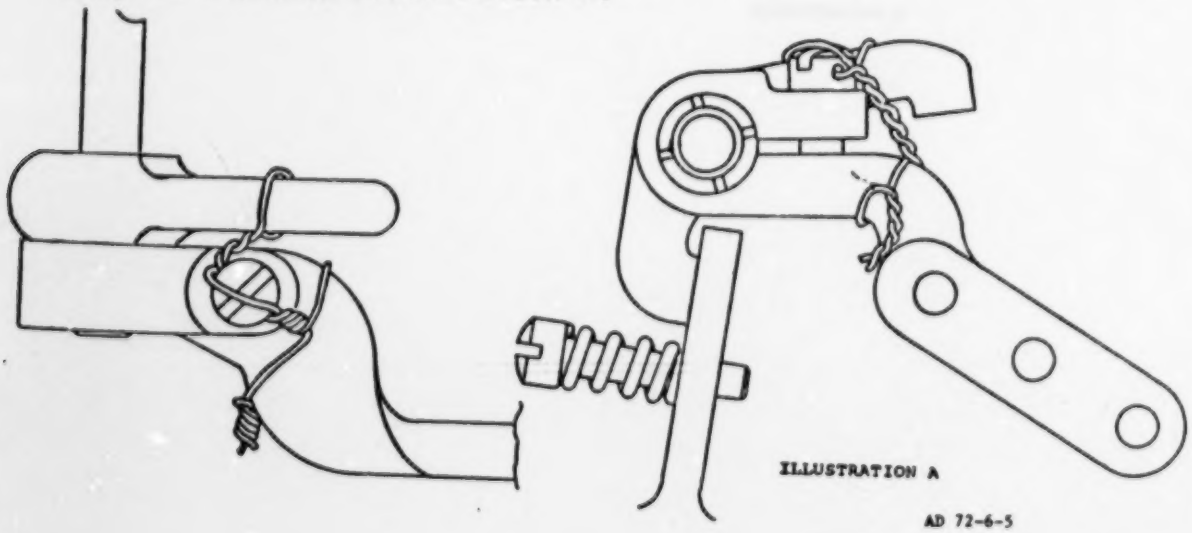


ILLUSTRATION A

(3) On Marvel Schebler MA-4-5, MA4-5AA, MA-5, MA-5AA, MA-6AA, and HA-6 series carburetors with throttle arms having a 10-32 bolt and nut clamping the arm on the throttle stop, torque the nut to 35 to 40 in. lbs. and safety wire the throttle arm to the throttle stop as shown in Illustration B. On these series carburetors having a throttle arm threaded for a 10-24 screw, if not already installed, install a Marvel Schebler P/N A15-493 clamping screw (No. 10-24 x 5/8 slotted drilled fillister head) in the throttle arm and torque the screw to 20 to 28 in. lbs. Safety wire the throttle arm to the throttle stop as shown in Illustration C or D.

NOTE: The procedures specified in American Aviation Corporation Service Letter No. 69-4, dated October 3, 1969, Cessna Service Letter SE71-17 revised February 25, 1972, and Lycoming Service Bulletin No. 330A, dated October 30, 1970, are approved as equivalent procedures to those prescribed in this AD for the applicable carburetors.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, New York Aircraft Certification Office, Aircraft Certification Division, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

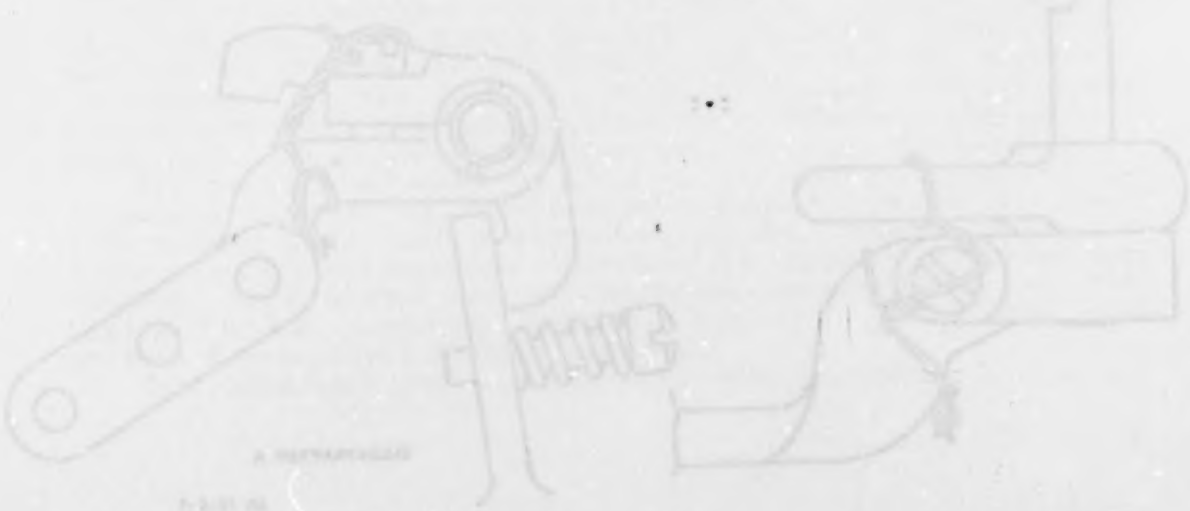
Amendment 39-1411 (AD 72-6-5) became effective March 24, 1972.

Amendment 39-1685 became effective July 9, 1973.

This Amendment 39-5338 becomes effective July 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Roy Hettenbach, ANE-174, New York Aircraft Certification Office, Aircraft Certification Division, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone (516) 791-7421.



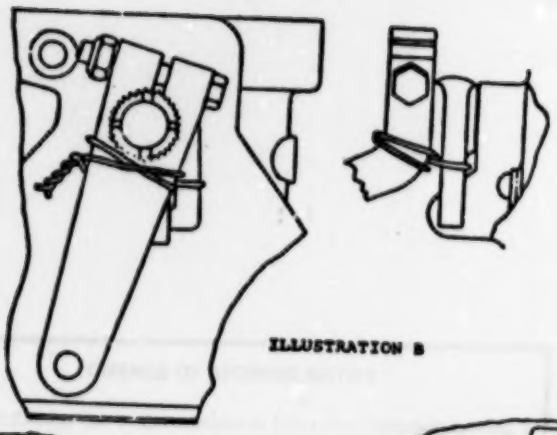


ILLUSTRATION B

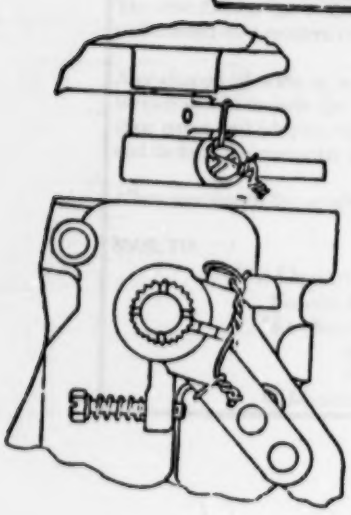


ILLUSTRATION C

AD 72-6-5

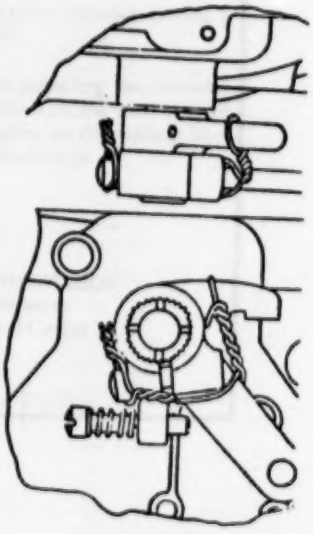


ILLUSTRATION D

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Revision Gates Learjet - Revises AD 82-01-05

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WYTWORNIA SPRZETU KOMUNIKACYJNEGO
Airworthiness Directive
VOLUME I

86-13-01 WYTWORNIA SPRZETU KOMUNIKACYJNEGO: Amendment 39-5330. Applies to Model(s) PZL M18 (S/Ns up to and including 1Z012-40) airplanes, certificated in any category.

Compliance: Required as indicated after the effective date of this AD, unless already accomplished.

To prevent loss of engine control, accomplish the following:

(a) Before the first flight of each day:

(1) Visually check the following parts for the absence of discernible deformation, corrugation and cracks in accordance with Wytwornia Sprzetu Komunikacyjnego, PZL-Mielec Mandatory Service Bulletin (MSB) No. E/02.064/84, dated April 1984:

(i) The propeller pitch control system load carrying tube, P/N D65.250.00.2 (see the above S/B Sketch No. 1, sheet 1).

(ii) The propeller pitch control system bracket, P/N D65.012.00.1 (see the above S/B Sketch No. 1, sheet 1).

(iii) The throttle control system torque tube, P/N D65.210.00.1 (see the above S/B Sketch No. 1, sheet 2).

(iv) The engine mounting frame struts (see the above S/B Sketch No. 2).

(2) If no cracks, deformations, or corrugations are found, record compliance with paragraph (a)(1) of this AD in the aircraft maintenance records in accordance with FAR 91.173.

(3) If any crack, deformation, or corrugation is found, replace the damaged part before the next flight as follows:

(i) The propeller pitch control tube with a new serviceable part, or accomplish (iv).

(ii) The propeller pitch control bracket with a new serviceable part, or accomplish (iv).

(iii) The throttle control torque tube with a new serviceable part or an improved part in accordance with Mandatory Design Bulletin (MDB) No. K/02.067/84, dated July 1984, or accomplish (iv).

(iv) The torque tube system with either the D65.300.00.4 propeller pitch control cable installation and the D65.310.00.4 throttle control cable installation in accordance with MDB No. K/02.060/83 dated October 1983, or alternatively replace both with the 56-3632-0062 cable installations in accordance with Mandatory Engineering Bulletin (MEB) No. K/02.070/84.

(v) The engine frame struts with new serviceable units or with an improved engine mount P/N D64.100.00.5 in accordance with MDB No. K/02.060/83, dated October 1983.

(b) The daily visual check required by paragraph (a)(1) of this AD may be performed by the holder of a pilot certificate issued under FAR Part 61 on any airplane which is not used for operations under FAR Part 121, 127, 129, or 135.

(c) Within 50 hours time-in-service (TIS) after the effective date of this AD and every 50 hours TIS thereafter:

(1) Visually inspect for cracks, using a 5X power (or greater) magnifying glass, the parts described in paragraphs (a)(1)(i) through (a)(1)(iv) of this AD in accordance with MSB E/02.064/84.

(2) If any crack is found, prior to the next flight accomplish the corrective action described in paragraph (a)(3) of this AD.

(d) The intervals between the repetitive 50 hour TIS inspections required by this AD may be adjusted up to 10 percent of the specified interval to allow accomplishment of these inspections concurrent with other scheduled maintenance of the airplane.

(e) Aircraft may be flown in accordance with FAR 21.197 to a location where paragraph (a)(3) and (c) of this AD can be accomplished.

(f) The daily and 50 hour TIS repetitive inspections specified by this AD are no longer required after MDB No. K/02.060/83, dated October 1983, is accomplished. If MEB No. K/02.070/84 is accomplished prior to MDB No. K/02.060/83, the inspections specified by this AD on the propeller and throttle controls are no longer required. The engine frame inspection would still be required.

(g) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Wytwornia Sprzetu Komunikacyjnego, PZL-Mielec, 39-301 Mielec, Poland, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on July 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. M. Dearing, Aircraft Certification Staff, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium, telephone 513.38.30; or Mr. J. P. Dow, Sr., FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106, telephone (316) 374-6932.

TELEDYNE CONTINENTAL
Airworthiness Directive
VOLUME I

86-13-04 TELEDYNE CONTINENTAL MOTORS (TCM): Amendment 39-5345. Applies to the following TCM Engine Models (Part I) and Cylinder Assemblies (Part II).

PART I

NEW ENGINES	SERIAL NUMBERS
GTSIO-520-H	607068 thru 607070
-K	605164
-L	608669 thru 608673
-M	606979 thru 606997
-N	610450 thru 610462
TSIO-520-BE	528133 thru 528242, 528244 thru 528246, 528252 thru 528256, 528259, 528260, 528263, 528270
-CE	530045 thru 530127, 530131, 530132
-C	501603 thru 501610
-EB	510802 thru 510809
-G	507066
-H	506883 thru 506885
-M	520742 thru 520824, 520829 thru 520835, 520837, 520838
-NB	521585 thru 521615
-P	513908 thru 513910
-R	522588 thru 522602, 522604, 522605
-UB	527063 thru 527080
-VB	529014 thru 529060
-WB	518895 thru 518906
IO-520-BB	578073, 578084 thru 578151, 578155, 578156, 578166
-CB	576237 thru 576272
-D	575717, 575747 thru 575806
-E	556594 thru 556603
-F	574844 thru 574988
-K	557516 thru 557518
-L	577121 thru 577147, 577149 thru 577153
-MB	575043 thru 575046
IO-550-B	675125 thru 675237, 675239 thru 675244, 675246 thru 675256, 675258 thru 675266, 675273, 675274, 675277, 675278
-C	676156 thru 676231, 676233 thru 676248, 676250 thru 676271

REBUILT ENGINES

GTSIO-520-C	155546 thru 155550
-D	219429 thru 219435
-H	235236 thru 235290, 235293 thru 235298, 267000 thru 267003
-K	226106 thru 226110
-L	245882 thru 245990, 245992 thru 246008, 246011 thru 246014, 246016 thru 246021, 246023, 246024
GTSIO-520-M	243217 thru 243364, 243366, 243367, 243369 thru 243381
-N	241300, 265000 thru 265039, 265041
TSIO-520-AF	245205
-BB	236937 thru 236951
-B	176485 thru 176522
-C	178289 thru 178297
-EB	242984 thru 242999
-E	183816 thru 183939, 183941 thru 183943, 183947
-G	216022 thru 216025
-H	217173 thru 217187
-J	218907 thru 218924
-K	224583, 224584
-LB	237237 thru 237241, 237245, 237246
-L	241883 thru 241900
-M	230223, 230225, 248601 thru 248628, 248632 thru 248638, 248642
-NB	244933 thru 244999, 266500, 266501, 266503 thru 266511, 266513 thru 266517, 266521, 266525
-N	228481 thru 228505, 228509 thru 228516
-P	236453 thru 236467
-R	245645 thru 245696
-T	239316 thru 239321
-UB	240981 thru 241000, 248851 thru 248854, 248858
-VB	248288 thru 248499, 266600 thru 266681, 266683 thru 266685, 266687, 266689, 266691, 266699 thru 266702
-WB	248160 thru 248203, 248205 thru 248217
IO-520-A	112547 thru 112569
-BA	241763 thru 241800, 249251 thru 249425, 249427 thru 249429, 249433 thru 249443, 249445, 249446, 249448 thru 249453, 249457
-BB	236000, 236789, 248500 thru 248568, 248572, 248573, 248575
-B	234758
-CB	244047, 244067 thru 244110, 244112 thru 244123, 244126, 244127, 244130, 244131

IO-520-C	243728, 243766 thru 243999, 267500, 267505 thru 267510, 257513 thru 267516, 267527
-D	175381 thru 175531, 175534 thru 175536, 175540 thru 175556, 175559, 175560, 175563, 175565 thru 175567
-E	215674 thru 215690
-F	247574, 247577, 247607 thru 247727, 247731 thru 247742, 247744, 247746 thru 247750, 247752 thru 247756, 247762, 247766, 247767
-J	216515
-K	224045, 224046
-L	242834 thru 242896, 242899
-MB	236383 thru 236400, 266000 thru 266017, 266019
-M	235728 thru 235787, 235789 thru 235793
IO-550-B	249104 thru 249122

PART II

Cylinder Assemblies - (Part Number stamped on flange of cylinder) P/N's 643985, 646100, 646101, 646652, 646657, 649169, 649162 including all these numbers with all A dash numbers as a suffix, manufactured on or after January 1, 1985.

Compliance is required within the next five flight hours after the effective date of this AD, unless already accomplished and must be repeated at intervals not to exceed 50 flight hours until the last inspection required by this AD has been accomplished. The last inspection required by this AD must occur between 440 hours and 490 hours of cylinder operation.

To prevent possible cylinder head to barrel separation, engine failure and/or engine compartment fire, accomplish the following:

PART I

(a) Visually inspect all cylinders for oil stains or leakage between the first and second barrel fins from the bottom of the head casting. The area of concern on direct drive engines is at the 12 o'clock position on the 1-3-5 cylinder side and the 6 o'clock position on the 2-4-6 side. On the GTSIO series engine, the area of concern is at the 6 o'clock position on the 1-3-5 cylinder side and the 12 o'clock position on the 2-4-6 cylinder side.

(b) Pressure check all cylinders using a differential compression tester. The piston should be as close to BDC (Bottom Dead Center) as possible to insure the piston and rings are below the inspection area specified in Paragraph (a) but still keeping both valves closed and maintaining pressure in the cylinder. With 80 PSIG (pounds per square inch gauge) air pressure in the cylinder, check the area specified in Paragraph (a) with a soap/water solution and inspect for any leakage.

(c) If any leakage is noted from the above inspections, the cylinder must be changed before further flight.

(d) Make appropriate Engine Logbook entry upon completion of each inspection.

PART II

(a) If the cylinder assembly has been installed on an engine, remove the rocker cover and verify the manufacture date stamped in the face of the rocker shaft boss, e.g., 5-85 is May 1985. Any cylinder assembly with a 1-85 (January 1985) or subsequent date, must be inspected per Part I above.

(b) If the cylinder assembly has not been installed on an engine and is identified (as described in Part II, Paragraph (a) above) as having a manufacture date stamp of 1-85 (January 1985) or subsequent, then notify Teledyne Continental Motors for disposition and replacement.

(c) Make appropriate Engine Logbook entry upon completion of each inspection.

NOTES: (a) Teledyne Continental Motors Service Bulletin No. M86-7 addresses this subject.

(b) The manufacturer recommends continuing repetitive inspections at 100 hour intervals or at annual inspection.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and FAR 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Atlanta Aircraft Certification Office, may adjust the compliance time specified in this AD.

This amendment becomes effective on July 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Goodall, Aerospace Engineer, Propulsion Branch, ACE-140A, Atlanta Aircraft Certification Office, Federal Aviation Administration, 1075 Inner Loop Road, College Park, Georgia 30337, telephone (404) 763-7435.

HARTZELL
Airworthiness Directive
Final Copy of Letter
VOLUME I

86-05-12 HARTZELL PROPELLER PRODUCTS DIVISION: Amendment 39-5333. Applies to Hartzell Model HC-B3TN-5( )/T10282( ) propellers installed on Fairchild Model SA226-TC aircraft modified by Garrett STC SA344GL or Par Air STC SA4872SW with TPE331-10UA engines.

Compliance required prior to accumulating 1,000 hours time in service since new or 300 hours time in service since overhaul, or within 30 days after the effective date of this AD, whichever occurs later, unless already accomplished.

To prevent propeller blade separation near the hub which could result in engine separation from the aircraft, accomplish the following:

(a) Remove propeller from aircraft.

(b) Accomplish the following in accordance with Hartzell Service Bulletin No. 136C dated March 3, 1986, or FAA approved equivalent:

(1) Disassemble propeller and visually inspect the blade pilot tube bore area. Particular attention shall be made to area between the inner needle bearing assembly and bearing spacer.

(2) Remove all evidence of scratches, tool marks, corrosion, etc. in the blade pilot tube bore area. Do not exceed the maximum rework limitations defined in the service bulletin.

(3) Etch the blade pilot tube bore area prior to penetrant inspection. Ensure removal of all etching solution.

(4) Penetrant inspect the blade pilot tube bore area.

(5) Coat the blade pilot tube bore area with alodine.

(6) Install bearing spacer and inner needle bearing assembly. Pilot tube bore must be lubricated to facilitate bearing installation.

(c) Replace, prior to further flight, all blades showing evidence of cracks or other unairworthy conditions with airworthy blades.

(d) Place the following WARNING in the Limitation Section of the FAA approved airplane flight manual supplement: "The TPE331-10UA engine is capable of developing in excess of the maximum allowable torque approved for this installation. Use of torque in excess of the maximum approved limits may cause propeller failure."

NOTES:

(1) Propeller blades with serial numbers subsequent to F74359 have had the intent of this AD incorporated during manufacture and are not affected by this AD.

(2) This AD does not apply to propellers installed on TPE331-3 engines unless the propellers were previously installed on TPE331-10UA engines for at least 1000 hours time in service since new or at least 300 hours time in service since overhaul.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR) 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Hartzell Service Bulletin No. 136C dated March 3, 1986, identified and described in this document is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacture may obtain copies upon request to Hartzell Propeller Products Division, TRW Aircraft Components Group, 350 Washington Ave., Piqua, Ohio 45356. This document also may be examined at the Office of Regional Counsel, FAA, Attn: Rules Docket No. 86-ANE-9, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective June 27, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 86-05-12 issued March 7, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Robert Alpiser, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone (312) 694-7130.

HARTZELL
Airworthiness Directive
Revision
VOLUME I

85-14-10 R1 HARTZELL PROPELLER PRODUCTS DIVISION: Amendment 39-5098 as amended by Amendment 39-5334. Applies to all Hartzell Model ( )HC- ( )( )(X,V) series propellers with Hartzell Part Number C-3-( ) blade clamp assemblies.

Compliance is required within the next 12 months or by the next overhaul after the effective date of this AD, whichever occurs first, unless already accomplished.

To prevent propeller blade clamp failure, accomplish the following:

(a) Replace all propeller blade clamp assemblies which have serial numbers ranging from 0 through D5293 with airworthy clamp assemblies.

(b) Replace all propeller blade clamp assemblies which have mismatching serial numbers on each clamp half or which have unreadable serial numbers with airworthy clamp assemblies.

(c) Accomplish the following on all blade clamp assemblies which have serial numbers ranging from D5294 through K6336 in accordance with Hartzell Service Instruction No. 159B dated May 23, 1986, or FAA approved equivalent:

(1) Using a 10x power magnifying glass, visually inspect the inner bearing race radius, especially next to the inner clamp bolt hole, for defects in the form of corrosion, tool marks, gouges, scratches, etc.

(2) Remove all evidence of defects in the clamp inner bearing race radius. Replace all reworked clamps that exceed the rework limitations defined in the Service Instruction with airworthy clamp assemblies or return to Hartzell for further evaluation.

(3) Magnetic particle inspect the clamp for evidence of cracks. Replace all cracked clamps with airworthy clamp assemblies.

(4) Replate all reworked clamps.

NOTE: Compliance with Amendment 39-5098 constitutes compliance with this AD.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, Central Region.

Hartzell Service Instruction No. 159B dated May 23, 1986, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain a copy upon request to Hartzell Propeller Products

Division, TRW Aircraft Components Group, 350 Washington Avenue, Piqua, Ohio 45356. This document also may be examined at the Office of Regional Counsel, FAA, Attn: Rules Docket No. 84-ANE-24, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

Amendment 39-5098 (50 FR 30417) became effective on September 27, 1985.

This Amendment 39-5334 becomes effective on June 30, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert Alpiser, Chicago Aircraft Certification Office, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018, telephone (312) 694-7130.

SIKORSKY
Airworthiness Directive
Revision
VOLUME I

83-17-07 R2 SIKORSKY AIRCRAFT: Amendment 39-4711 as amended by Amendment 39-5017 is further amended by Amendment 39-5332. Applies to Sikorsky Aircraft Model S-76A helicopters, S/N 76004 (experimental), 76005, 76006, 76007, 760001 through 760309 except 760262, 760269, 760299, 760303 certified in all categories, equipped with P/N 76201-05001-103 and 76201-05001-104 forward spar cap angles, 76201-05001-101 forward spar web, and 76201-05001-107 forward spar web doubler and, with or without repair per Sikorsky Overhaul and Repair Instructions (O&RI) 76200-014B or Reinforcement Kit 76070-20070 per Sikorsky Customer Service Notice No. 76-141 or Revision A or Revision B. (Airworthiness Docket No. 83-ASW-30.)

Compliance is required as indicated unless already accomplished.

To prevent failure of the helicopter vertical pylon forward spar cap, web, and web doubler, accomplish the following:

(a) For helicopters that have attained 100 or more hours time in service, compliance is required within the next 25 hours time in service after the effective date of this AD unless already accomplished within the last 25 hours time in service, and thereafter at intervals not to exceed 50 hours time in service from the last inspection.

(b) For helicopters that have not attained 100 hours time in service on the effective date of this AD, compliance is required before attaining 100 hours time in service and thereafter at intervals not to exceed 50 hours time in service.

(c) Inspect for cracks in the forward spar cap angles, spar web, and web doubler and in repairs and reinforcements in the area of the tail rotor shaft cutout in the pylon forward spar and areas adjacent to the fuselage shear deck as follows:

(1) Remove the tail rotor drive shaft fairings in the vicinity of the vertical pylon, exposing the shear deck and vertical pylon forward spar.

(2) Clean all accessible areas around the tail rotor drive shaft cutout area in the vertical pylon forward spar using a clean cloth dampened with solvent P-D-680, Type II, or FAA approved equivalent.

(3) Using a light, visually inspect the forward side of the spar for cracks in all areas adjacent to the shear deck attachment to the forward spar web, and the web doubler.

(4) Using a light and mirror, visually inspect the aft side of the spar for cracks. Inspect through the tail rotor drive shaft cutout.

(5) If cracks are found in the spar web or spar web doubler or in their repair or reinforcement parts, accomplish the following:

(i) For each part, if multiple cracks are found or if a single crack equal to or in excess of 2 1/2 inches in length is found, replace cracked parts prior to further flight with new parts of the same part number; or if not previously repair or reinforced incorporate a repair procedure contained in Sikorsky Overhaul and Repair Instructions (O&RI) 76200-014B or later FAA approved revision or an equivalent procedure approved as noted in paragraph (d) of this AD.

(ii) If a single crack is less than 2 1/2 inches in length, visually inspect the part for crack length prior to the first flight of each day, and

(A) Within 25 hours time in service after finding a crack, replace or repair the part in accordance with paragraph (c)(5)(i), except

(B) Replace or repair the affected part in accordance with paragraph (c)(5)(i) before further flight, whenever the crack length reaches 2 1/2 inches.

(6) If a crack is found in the spar cap angles, replace the cracked spar cap angles prior to further flight with a new spar cap angle of the same part number in accordance with Sikorsky Maintenance Manual SA 4047-76-2, Section 5-20-00, Paragraph 9.A(1), Stabilizer Installation Repair Procedures, Revision 3, or approved equivalent procedures as noted in paragraph (d) of this AD.

(7) If either no cracks are found, or paragraphs (c)(5) and (c)(6) are completed, reinstall tail rotor drive shaft fairings.

(d) Alternate inspections, repairs, modifications, or other means of compliance which provide an equivalent level of safety must be approved by the Manager, Boston Aircraft Certification Branch, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

(e) On request of an operator, an FAA maintenance inspector, subject to prior approval of the Manager, Boston Aircraft Certification Branch, may extend the repetitive inspection interval specified in this AD if the request contains justifying data.

The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Sikorsky Aircraft, Division of United Technologies, North Main Street, Stratford, Connecticut 06601. These documents also may be examined at the Rules Docket at the Office of the Regional Counsel, Southwest Region, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas 76106.

This amendment amends Amendment 39-4711 (46 FR 39052), AD 83-17-07, as amended by Amendment 39-5017 (50 FR 15099).

Amendment 39-4711 became effective August 31, 1983.

Amendment 39-5017 became effective April 22, 1985.

This Amendment 39-5332 becomes effective July 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Richard B. Noll, Airframe Section, ANE-152, Boston Aircraft Certification Office, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7111.

AIRBORNE
Airworthiness Directive
Correction
VOLUME I

86-01-06 AIRBORNE DIVISION, PARKER HANNIFIN CORPORATION: Amendment 39-5206. Applies to the following Airborne Dry Air Pumps and Auxiliary Dry Air Pumps installed on piston engine airplanes certificated in any category:

AIRBORNE PART NUMBER	SERIAL NUMBERS
Dry Air Pumps	
241CC-13	10AA30 thru 10AA36 and 10AA38
242CW	10AA281 thru 10AA293
441CC	9AA260 thru 9AA288 9AA291, 9AA294, 9AA295
441CC-7	9AA929 thru 9AA-949 9AA953, 9AA954 9AA956, 9AA957, 9AA959
442CW	9AA850 thru 9AA875 9AA880 thru 9AA886, 9AA888 thru 9AA903, 9AA905 thru 9AA921, 9AA928, 9AA934, 9AA936, 9AA939, 9AA940, 9AA945 thru 9AA952, 9AA955 thru 9AA958, 9AA962 thru 9AA967
442CW-4	10AA173 thru 10AA179 10AA182 thru 10AA199 10AA201, 10AA202
442CW-12	10AA356, 10AA357, 10AA386, 10AA389
Auxiliary Dry Air Pumps	
4A2-1	9AA44 thru 9AA46
4A3-1	9AA56, 9AA59 thru 9AA66, 9AA73, 9AA79 thru 9AA82 10AA83 thru 10AA88, 10AA90 thru 10AA94, 10AA96, 10AA114, 10AA126, 10AA130, 10AA131, 10AA132, 10AA138, 10AA150, 10AA154, 10AA155, 10AA159, 10AA161

NOTE: These pumps were not available for installation before September 1, 1985. Therefore, new Airborne Dry Air Pumps or Auxiliary Dry Air Pumps installed previous to that date are exempt from this AD. Pumps that have been reworked by Airborne will have a white date code stamped on the pump

housing near the discharge port. This will indicate that the pump complies with this AD.

COMPLIANCE: Required as indicated, unless previously accomplished. To prevent premature failure of the Airborne Dry Air and Auxiliary Dry Air Pumps, accomplish the following:

(a) For Dry Air Pumps P/N's 241CC-13, 242CW, 441CC, 441CC-7, 442CW, 442CW-4, and 442CW-12, prior to further flight in IFR conditions, inspect installed dry air pump(s) to determine if one of the subject pumps is installed.

(1) If one of these pumps is installed, and if the airplane is equipped for IFR flight, fabricate using minimum 0.10 inch letters, and install a placard in full view of the pilot which states; "FLIGHT IN IFR CONDITIONS PROHIBITED", and operate in accordance with this limitation.

(2) And within 15 days of the effective date of this AD, replace the subject pump and remove the placard. Return pump to Airborne as described in Airborne Service Letter No. 30, dated November 11, 1985.

(b) For Airborne Auxiliary Dry Air Pump P/N 4A2-1 or 4A3-1, prior to further flight in IFR conditions, inspect the auxiliary dry air pump if installed, to determine if one of the subject pumps is installed.

(1) If one of these pumps is installed, fabricate using a minimum of 0.10 inch letters and install a placard in full view of the pilot which states;

"STANDBY VACUUM SYSTEM MAY BE INOPERATIVE DUE TO VACUUM PUMP MALFUNCTION".

(2) And within 30 days of the effective date of this AD, replace the subject pump and remove the placard. Return pump to Airborne as described in Airborne Service Letter No. 30, dated November 11, 1985.

(c) Aircraft may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(d) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 232, Des Plaines, Illinois 60018, Telephone (312) 694-7357.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Betty Annable, Parker Hannifin Corp., Airborne Division, 711 Taylor Street, Elyria, Ohio 44036 or the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles Smalley, Aerospace Engineer, Systems and Equipment Branch, ACE-130C, FAA, Central Region, Chicago Aircraft Certification Office, 2300 East Devon Ave., Des Plaines, Illinois 60018; Telephone (312) 694-7126.

GLASFLUGEL
Airworthiness Directive
Correction
VOLUME I

85-22-11 R1 GLASFLUGEL: Amendment 39-5291. Applies to "Standard Libelle" and "Standard Libelle-201B" (aircraft serial numbers 1 through 476), and H301 and H301B "Libelle" (all aircraft serial numbers) gliders.

Compliance is required as indicated unless already accomplished.

To prevent fatigue failure of the elevator linkage in the area of the welded seam at the base of the control stick which could result in loss of elevator control, accomplish the following:

(a) Within the next 10 hours time in service after the effective date of this AD, and thereafter at intervals not to exceed 10 hours time in service after the last inspection, unless compliance with paragraph (c) is already accomplished, visually inspect the elevator linkage, part number (P/N) 301-41-3/2, by means of a magnifying glass of at least 5 times magnification for cracks in the area of the welded seam at the base of the control stick.

(b) If a crack is found during the inspection required by paragraph (a) of this AD, before further flight, replace elevator linkage, P/N 301-41-3/2, with a serviceable part.

(c) Within the next 50 hours time in service after the effective date of this AD, but no later than July 1, 1986, replace the elevator linkage, P/N 301-41-3/2, with P/N 301-41-4/2, in accordance with Glasflugel Technical Notes Nos. 201-22, dated July 29, 1980, for Models "Standard Libelle" and "Standard Libelle-201B", and 301-31, dated July 29, 1980, for Models H 301 and H301B "Libelle" gliders, or an FAA-approved equivalent.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, telephone 513.38.30 ext. 2710.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Brussels Aircraft Certification Office, may adjust the compliance time specified in this AD.

Glasflugel Technical Notes Nos. 201-22 and 301-31, dated July 29, 1980, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Mr. Hansjoerg Streifender,

Bruelstrasse 12, 7318 Lenningen 2, Federal Republic of Germany. These documents also may be examined at Regional Counsel, ANE-7, FAA New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective May 6, 1986, as to all persons except those persons to whom it was made immediately effective by priority letters AD No. 85-22-11 and 85-22-11R1, issued October 30 and December 31, 1985, respectively, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, telephone 513.38.30 ext. 2710, or Richard B. Noll, ANE-152, Boston Aircraft Certification Office, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7111.

GATES LEARJET
Airworthiness Directive
Correction
VOLUME I

85-22-08 R2 GATES LEARJET CORPORATION: Amendment 39-5166 as amended by Amendment 39-5223 is further amended by Amendment 39-5296. Applies to Model 55 airplanes, serial numbers 55-003 through 55-086, except those incorporating Service Bulletin 55-27-7A, Airplane Modification Kit 55-84-7B, or Airplane Accessory Kit 55-83-4.

Compliance required as indicated after the effective date of this AD, unless already accomplished.

To prevent use of incorrect landing distances, accomplish the following:

A. Within the next 10 hours time-in-service after the effective date of this AD, insert the following information in the "FAA Approved Airplane Flight Manual for Gates Learjet 55," dated 3/17/81 (on 10/4/85, changes through Change 20, dated 5/10/84, were current):

1. Replace the paragraph "SPOILERS/AUTOSPOILERS/SPOILERONS" (pages 1-14) with:

"SPOILERS/SPOILERONS

(a) Spoilers

(1) During landings, a time delay in the spoiler circuit will cause increased spoiler extension times. For a normal landing (spoilerons operative with flaps below 25 degrees), full spoiler extension will require approximately 5 seconds. If the spoilerons are inoperative (AUG AIL light illuminated) or the SPOILERON circuit breaker (co-pilot's AC bus) is pulled, spoiler extension will require approximately 11 seconds. To account for the increase spoiler deployment times, the following corrections must be applied to the Actual Landing Distance obtained from the ACTUAL LANDING DISTANCE chart in Section V:

Normal Landing: Multiply distance by 1.04.
Spoilerons Inoperative: Multiply distance by 1.15.

(2) If the spoilers are inoperative during flight, the maximum operating altitude is limited to 41,000 feet.

(3) Do not extend spoilers with flaps extended while airborne.

(4) Do not extend spoilers, or operate with spoilers deployed, at speeds above VMO/MMO.

(b) Spoilerons

(1) Spoilerons may be inoperative. If spoileron preflight check fails, the SPOILERON circuit breaker (co-pilot's AC bus) must be pulled. When the SPOILERON circuit breaker is pulled, the spoilers and spoilerons will be inoperative in flight and landing spoiler deploy times will increase. With spoilerons inoperative, the maximum operating

altitude will be limited to 41,000 feet, and the Actual Landing Distance obtained from Section V must be increased by 15 percent (multiply by 1.15)."

2. Replace the first NOTE under the BEFORE TAXI Spoileron System Check (page 2-20) with the following:

"In the event the spoilerons fail the following check, SPOILERON circuit breaker (co-pilot's AC bus) - Pull. AUG AIL will illuminate. The spoilers and spoilerons will be inoperative in flight. The spoiler deploy time will be increased for landing. In this event, the maximum operating altitude is limited to 41,000 feet and the Actual Landing Distance obtained from Section V must be increased 15 percent (multiply by 1.15)."

3. The following factors must be applied to the Actual Landing Distance obtained from figure 5-57 (page 5-74):

"Normal Landing: Multiply distance by 1.04
Spoilers Inoperative: Multiply distance by 1.15."

B. In order to comply with the requirements of paragraph A., above, a copy of this AD may be used as a temporary amendment to the Airplane Flight Manual (AFM) and carried in the airplane as part of the AFM until replaced by Gates Learjet-published Temporary Flight Manual (TFM) Changes TFM 85-17, TFM 85-18, and TFM 85-19.

C. Temporary Flight Manual (TFM) Changes TFM 85-17, TFM 85-18, and TFM 85-19 may be removed from the AFM upon incorporation of either Gates Learjet Service Bulletin (SB) 55-27-7A (dated December 12, 1985), Airplane Modification Kit (AMK) 55-84-7B (dated December 12, 1985), or Airplane Accessory Kit (AAK) 55-83-4.

D. For airplanes equipped with thrust reversers modified in accordance with Gates Learjet SB 55-27-7 or AMK 55-84-7A, that modification (SB 55-27-7 or AMK 55-84-7A) must be removed within the next 30 days after the effective date of this AD.

E. For airplanes not equipped with thrust reversers, modification in accordance with Gates Learjet SB 55-27-7 or AMK 55-84-7A constitutes terminating action for the requirements of this AD.

F. Alternate means of compliance with provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-5166 became effective November 22, 1985.

Amendment 39-5223 became effective February 6, 1986.

3 85-22-08 R2

This Amendment 39-5296 becomes effective May 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Bennett L. Sorensen, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4433.

GATES LEARJET
Airworthiness Directive
Correction
VOLUME I

82-01-04 R2 GATES LEARJET: Amendment 39-4296 as amended by Amendment 39-4751 is further amended by Amendment 39-5242. Applies to the following models and serial number airplanes certificated in any category:

MODELS	SERIAL NUMBERS
25, 25A	25-003 through 25-066 except 25-061
25B, 25C	25-061, 25-067 through 25-205

COMPLIANCE: Required as indicated, unless previously accomplished.

A) On or before the compliance date (Reference Table I), accomplish the requirements of this paragraph at an FAA certificated maintenance repair agency. However, the modification and inspection of the horizontal stabilizer trim actuator as required in the airplane modification kits referenced in Table I may be performed by another FAA certificated repair agency utilizing qualified technicians who must have recent accessory overhaul experience performing the overhaul and test of the Gates Learjet Horizontal Stabilizer Trim Actuator with the necessary shop equipment (Attachment I hereto) as referenced in Learjet Repair Manual Number 1711-9, or the equivalent equipment.

1) Modify Learjet Models 25, 25A and 25B/C airplane flight control systems, stall warning and control wheel in accordance with the following:

Table I

Gates Learjet Airplane Modification Kit	Learjet Models	Compliance Date/Time
AMK 81-9, *AMK 81-8, and AMK 80-13 Change 3	25 B/C	On or before October 31, 1982
AMK 81-10 Change 1, *AMK 81-8, and AMK 80-13 Change 3	25, 25A	On or before August 31, 1982

* Kit AMK 81-8 does not apply unless Kit AAK 76-4 has been installed.

B) Required Airplane Maintenance Record entry must be accomplished by the facility performing its portion of the AD as prescribed in paragraph A) of this AD.

C) Insert in the appropriate sections of the existing Airplane Flight Manual (AFM) the FAA approved temporary

Airplane Flight Manual Change pertaining to procedures required as a result of the modification of the flight control system in accordance with Airplane Modification Kit, all as listed in Table II below. Upon completion of the modifications required by paragraph A) of this AD and the insertion of the temporary AFM changes or equivalent permanent AFM revision, the identified, more restrictive paragraphs of AD 80-19-11 set forth in Table II below are no longer applicable.

Table II

Learjet AMK	Learjet Model	AFM Change Date	AD 80-19-11 Paragraphs of AD Superseded
AMK 81-10	25, 25A	October 14, 1981	A)2, A)5, A)6
AMK 81-9	25B/C	September 4, 1981	A)2, A)5, A)6

D) To ensure proper operation of the Stall Warning Accelerometer Unit, unless previously inspected in the last 100 hours time-in-service before the effective date of this AD, within the next 50 hours time-in-service, and at intervals not to exceed 220 hours time-in-service thereafter, perform the inspection of the Stall Warning Accelerometer in accordance with Gates Learjet Service Bulletin SB 23/24/25-301B, as appropriate.

E) Prior to accomplishing the modification required by paragraph A) of this AD, contact the FAA office noted in paragraph G) of this AD if any modification or alteration has been performed on the affected airplane for further instruction relative to the compatibility of the modification of this AD.

F) Airplanes may be flown in accordance with FAR 21.197 to a location where modifications required by this AD can be accomplished.

G) Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this proposal who have not already received the applicable service information from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-4296 became effective on January 8, 1982.

Amendment 39-4751 became effective on November 1, 1983.

This Amendment 39-5242 becomes effective April 7, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

ATTACHMENT I

The stabilizer actuator test stand (P/N ST-00463) is used to functionally test the stabilizer actuator after overhaul. The physical structure of the test must be capable of withstanding a minimum load of 2500 lbs. without any bending or deformation.

The stabilizer actuator is vertically mounted on the test stand with one end stationary and the other end movable through a hydraulic actuator. The test stand consists of the following components:

a. Hydraulic Actuator - The hydraulic actuator is capable of applying a regulated load of 0 to 2500 lbs. on the stabilizer actuator during the entire extend or retract cycles.

b. Hydraulic Pressure Regulator - The pressure regulator is used to select hydraulic pressures applied to the stabilizer actuator during the functional test.

c. Hydraulic Pressure Gauge - The hydraulic pressure gauge is used to monitor hydraulic pressure applied to the stabilizer actuator. The gauge must be certified at least monthly.

d. Digital Position Readout - The digital position readout indicator is used to monitor the travel of the stabilizer actuator. Signals to the indicator are picked up from a rigid mounted linear potentiometer and movable wiper attached to the hydraulic actuator. The digital readout is accurate to 1/1000th of an inch.

e. Linear Scale - A linear scale, graduated in 100th of an inch, is permanently mounted on the test stand to verify the digital readout. A tool of known length is used to verify the linear scale and digital readout before the stabilizer actuator functional test is performed. The tool length must be certified at least yearly.

f. Lapse Timer - A lapse timer is coupled to the control switches and the stabilizer actuator to monitor travel time during the extend and retract cycles. The lapse timer must measure seconds to be accurate to 1/100th of a second.

g. Trim Controller - The trim controller is used to simulate two-speed input to the stabilizer actuator primary motor. The trim controller part number is EM 2079-6.

h. Pre-Select Timer - The pre-select timer is used to check stabilizer actuator travel vs. time, voltage and amperage inputs in accordance with the functional test.

i. Power Supply - The power supply is variable through 0-30 volts DC and 0-30 amperes DC.

j. DC Voltmeter - The DC voltmeter must be capable of measuring 0-30 volts DC and must be certified at least yearly. The voltmeter is used to monitor the voltage inputs to the stabilizer actuator in accordance with the functional test.

k. DC Ammeter - The DC ammeter must be capable of measuring 0-30 amperes DC and must be certified at least yearly. The ammeter is used to monitor the amperes inputs to the stabilizer actuator in accordance with the functional test.

l. Millivolt Meter - The millivolt meter is used to monitor the stabilizer actuator linear potentiometer for a smooth and steady signal output. The meter is 0-50 volts graduated in 100 mv increments.

m. Switches - Necessary switches installed to operate the stabilizer actuator primary and secondary motors to extend or retract.

n. A digital or Simpson 260 meter, not a part of the test stand, is used to verify the resistance of the stabilizer actuator linear potentiometer. The digital or Simpson 260 meter must be certified at least every 90 working days.

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SAAB-FAIRCHILD
Airworthiness Directive
VOLUME II

86-13-02 SAAB-FAIRCHILD: Amendment 39-5336. Applies to Model SF-340A series airplanes, serial numbers 340A-003 to -048 inclusive, certificated in any category. Compliance is required within 60 days after the effective date of this AD. To prevent rudder overloads, accomplish the following, unless already accomplished:

A. Modify the rudder limiter in accordance with SAAB-Fairchild Service Bulletin SF340-27-018, dated May 10, 1985.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to SAAB-Fairchild Corporation, Product Support, S.58188, Linkoping, Sweden. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective July 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

AVIONS MARCEL DASSAULT-BREGUET AVIATION
Airworthiness Directive
VOLUME II

86-13-03 AVIONS MARCEL DASSAULT-BREGUET AVIATION: Amendment 39-5337. Applies to Model Falcon 10 series airplanes, serial numbers 1 through 206 inclusive, certificated in any category. Compliance is required within 60 days after the effective date of this AD. To detect an incorrectly wired automatic leading edge slat selector valve, accomplish the following in accordance with AMD-BA Service Bulletin F10-27-31(-247), dated July 18, 1984, unless previously accomplished.

A. Test the automatic leading edge slat extension system, and revise the leading edge slat selector valve wiring, if necessary.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to the AMD-BA Representative, 40 J.J.C., Teterboro Airport, Teterboro, New Jersey 07608. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective July 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

HARTZELL
Airworthiness Directive
Final Copy of Letter
VOLUME II

86-05-12 HARTZELL PROPELLER PRODUCTS DIVISION: Amendment 39-5333. Applies to Hartzell Model HC-B3TN-5( )/T10282( ) propellers installed on Fairchild Model SA226-TC aircraft modified by Garrett STC SA344GL or Par Air STC SA4872SW with TPE331-10UA engines.

Compliance required prior to accumulating 1,000 hours time in service since new or 300 hours time in service since overhaul, or within 30 days after the effective date of this AD, whichever occurs later, unless already accomplished.

To prevent propeller blade separation near the hub which could result in engine separation from the aircraft, accomplish the following:

(a) Remove propeller from aircraft.

(b) Accomplish the following in accordance with Hartzell Service Bulletin No. 136C dated March 3, 1986, or FAA approved equivalent:

(1) Disassemble propeller and visually inspect the blade pilot tube bore area. Particular attention shall be made to area between the inner needle bearing assembly and bearing spacer.

(2) Remove all evidence of scratches, tool marks, corrosion, etc. in the blade pilot tube bore area. Do not exceed the maximum rework limitations defined in the service bulletin.

(3) Etch the blade pilot tube bore area prior to penetrant inspection. Ensure removal of all etching solution.

(4) Penetrant inspect the blade pilot tube bore area.

(5) Coat the blade pilot tube bore area with alodine.

(6) Install bearing spacer and inner needle bearing assembly. Pilot tube bore must be lubricated to facilitate bearing installation.

(c) Replace, prior to further flight, all blades showing evidence of cracks or other unairworthy conditions with airworthy blades.

(d) Place the following WARNING in the Limitation Section of the FAA approved airplane flight manual supplement: "The TPE331-10UA engine is capable of developing in excess of the maximum allowable torque approved for this installation. Use of torque in excess of the maximum approved limits may cause propeller failure."

NOTES:

(1) Propeller blades with serial numbers subsequent to F74359 have had the intent of this AD incorporated during manufacture and are not affected by this AD.

(2) This AD does not apply to propellers installed on TPE331-3 engines unless the propellers were previously installed on TPE331-10UA engines for at least 1000 hours time in service since new or at least 300 hours time in service since overhaul.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR) 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Hartzell Service Bulletin No. 136C dated March 3, 1986, identified and described in this document is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacture may obtain copies upon request to Hartzell Propeller Products Division, TRW Aircraft Components Group, 350 Washington Ave., Piqua, Ohio 45356. This document also may be examined at the Office of Regional Counsel, FAA, Attn: Rules Docket No. 86-ANE-9, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective June 27, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 86-05-12 issued March 7, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Robert Alpiser, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone (312) 694-7130.

BOEING
Airworthiness Directive
Revision
VOLUME II

86-05-11 R1 BOEING: Amendment 39-5255 as amended by Amendment 39-5335. Applies to all Model 747 series airplanes, certificated in any category, listed in Boeing Alert Service Bulletin 747-57A2233, Revision 2, dated May 9, 1986.

To detect faulty self-locking nuts that could lead to separation of an engine, accomplish the following, unless already accomplished:

A. Within 100 landings after the effective date of this AD, perform a one-time inspection of the outboard attach fitting nuts of all nacelle struts for adequate self-locking torque of the nuts, part number BACN10HR162, in accordance with Boeing Alert Service Bulletin 747-57A2233, Revision 2, dated May 9, 1986, or later FAA-approved revisions.

B. Within 600 landings after the effective date of this AD, perform a one-time inspection of the inboard attach fitting nuts of all nacelle struts for adequate self-locking torque of the nuts, part number BACN10HR162, in accordance with Boeing Alert Service Bulletin 747-57A2233, Revision 2, dated May 9, 1986, or later FAA-approved revisions.

C. Defective nuts must be replaced prior to further flight.

D. Upon the request of an operator, an FAA Principal Maintenance Inspector, subject to prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection time in this AD to permit compliance at an established inspection period of that operator, if the request contains substantiating data to justify the change for that operator.

E. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this proposal who have not already received information on inspection procedures from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-5255 became effective March 31, 1986.

This Amendment 39-5335 becomes effective July 7, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING
Airworthiness Directive
Correction
VOLUME II

85-03-06 R1 BOEING: Amendment 39-4998 as amended by Amendment 39-5205. Applies to Model 737 series airplanes certificated in all categories listed in Boeing Service Bulletin 737-53-1031, Revision 3, dated October 28, 1983. To prevent rapid decompression resulting from undetected cracking of the wing-to-body drag angle, accomplish the following (unless previously accomplished) prior to the accumulation of 8,000 landings on Group I airplanes, or 35,000 landings on Group II airplanes, or within 1 year or 4,000 landings from the effective date of this AD, whichever occurs later:

A. Visually inspect the upper drag angles for cracks in accordance with the Flight Safety Addendum of Boeing Service Bulletin 737-53-1031, Revision 3, or later FAA approved revisions. Repeat the visual inspections at intervals not to exceed 4,000 landings.

B. If cracks are found, replace cracked parts with new aluminum parts and continue the inspections of paragraph A., above, or modify in accordance with the Accomplishment Instructions in Boeing Service Bulletin 737-53-1031, Revision 1, or later FAA-approved revisions.

C. Modification of airplanes in accordance with Accomplishment Instructions of Boeing Service Bulletin 737-53-1031, Revision 1, or later FAA-approved revisions, constitutes terminating action for this AD.

D. Airplanes may be flown to a maintenance base for drag angle replacement or modification in accordance with FAR 21.197 and 21.199 with prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

E. For purposes of complying with the AD, subject to acceptance by the assigned FAA Principal Maintenance Inspector, the number of landings may be determined by dividing each airplane's time in service by the operator's fleet average time from takeoff to landing for the airplane type.

F. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, Northwest Mountain Region, Seattle, Washington.

G. Upon request by the operator, an FAA Principal Maintenance Inspector, subject to prior approval by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the repetitive inspection intervals in this AD, if the request contains substantiating data to justify the increase for the operator.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain

copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-4998 became effective March 11, 1985.

This Amendment 39-5205 becomes effective February 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Carlton Holmes, Airframe Branch, ANM-120S; telephone (206) 431-2926. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

GATES LEARJET
Airworthiness Directive
Correction
VOLUME II

85-22-08 R2 GATES LEARJET CORPORATION: Amendment 39-5166 as amended by Amendment 39-5223 is further amended by Amendment 39-5296. Applies to Model 55 airplanes, serial numbers 55-003 through 55-086, except those incorporating Service Bulletin 55-27-7A, Airplane Modification Kit 55-84-7B, or Airplane Accessory Kit 55-83-4.

Compliance required as indicated after the effective date of this AD, unless already accomplished.

To prevent use of incorrect landing distances, accomplish the following:

A. Within the next 10 hours time-in-service after the effective date of this AD, insert the following information in the "FAA Approved Airplane Flight Manual for Gates Learjet 55," dated 3/17/81 (on 10/4/85, changes through Change 20, dated 5/10/84, were current):

1. Replace the paragraph "SPOILERS/AUTOSPOILERS/SPOILERONS" (pages 1-14) with:

"SPOILERS/SPOILERONS

(a) Spoilers

(1) During landings, a time delay in the spoiler circuit will cause increased spoiler extension times. For a normal landing (spoilerons operative with flaps below 25 degrees), full spoiler extension will require approximately 5 seconds. If the spoilerons are inoperative (AUG AIL light illuminated) or the SPOILERON circuit breaker (co-pilot's AC bus) is pulled, spoiler extension will require approximately 11 seconds. To account for the increase spoiler deployment times, the following corrections must be applied to the Actual Landing Distance obtained from the ACTUAL LANDING DISTANCE chart in Section V:

Normal Landing: Multiply distance by 1.04.
Spoilerons Inoperative: Multiply distance by 1.15.

(2) If the spoilers are inoperative during flight, the maximum operating altitude is limited to 41,000 feet.

(3) Do not extend spoilers with flaps extended while airborne.

(4) Do not extend spoilers, or operate with spoilers deployed, at speeds above VMO/MMO.

(b) Spoilerons

(1) Spoilerons may be inoperative. If spoileron preflight check fails, the SPOILERON circuit breaker (co-pilot's AC bus) must be pulled. When the SPOILERON circuit breaker is pulled, the spoilers and spoilerons will be inoperative in flight and landing spoiler deploy times will increase. With spoilerons inoperative, the maximum operating

altitude will be limited to 41,000 feet, and the Actual Landing Distance obtained from Section V must be increased by 15 percent (multiply by 1.15)."

2. Replace the first NOTE under the BEFORE TAXI Spoileron System Check (page 2-20) with the following:

"In the event the spoilerons fail the following check, SPOILERON circuit breaker (co-pilot's AC bus) - Pull. AUG AIL will illuminate. The spoilers and spoilerons will be inoperative in flight. The spoiler deploy time will be increased for landing. In this event, the maximum operating altitude is limited to 41,000 feet and the Actual Landing Distance obtained from Section V must be increased 15 percent (multiply by 1.15)."

3. The following factors must be applied to the Actual Landing Distance obtained from figure 5-57 (page 5-74):

"Normal Landing: Multiply distance by 1.04
Spoilers Inoperative: Multiply distance by 1.15."

B. In order to comply with the requirements of paragraph A., above, a copy of this AD may be used as a temporary amendment to the Airplane Flight Manual (AFM) and carried in the airplane as part of the AFM until replaced by Gates Learjet-published Temporary Flight Manual (TFM) Changes TFM 85-17, TFM 85-18, and TFM 85-19.

C. Temporary Flight Manual (TFM) Changes TFM 85-17, TFM 85-18, and TFM 85-19 may be removed from the AFM upon incorporation of either Gates Learjet Service Bulletin (SB) 55-27-7A (dated December 12, 1985), Airplane Modification Kit (AMK) 55-84-7B (dated December 12, 1985), or Airplane Accessory Kit (AAK) 55-83-4.

D. For airplanes equipped with thrust reversers modified in accordance with Gates Learjet SB 55-27-7 or AMK 55-84-7A, that modification (SB 55-27-7 or AMK 55-84-7A) must be removed within the next 30 days after the effective date of this AD.

E. For airplanes not equipped with thrust reversers, modification in accordance with Gates Learjet SB 55-27-7 or AMK 55-84-7A constitutes terminating action for the requirements of this AD.

F. Alternate means of compliance with provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-5166 became effective November 22, 1985.

Amendment 39-5223 became effective February 6, 1986.

3 85-22-08 R2

This Amendment 39-5296 becomes effective May 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Bennett L. Sorensen, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4433.

BOEING
Airworthiness Directive
Correction
VOLUME II

83-21-02 R1 BOEING: Amendment 39-4745 as amended by Amendment 39-5215. Applies to those Model 747 series airplanes certificated in all categories listed in Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision. To prevent failure of the trailing edge flap tracks, accomplish the following:

A. Inspect the external surface of the trailing edge flap tracks visually for cracks or corrosion penetration within the threshold landings set forth in Table I after the effective date of this AD, and thereafter at the repetitive intervals not to exceed those shown in Table I, below, in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision. These external visual inspections are to continue until the modifications of paragraph D are accomplished.

TABLE I

EFFECTIVITY AIRPLANE LINE NO.	THRESHOLD FOR INITIAL INSPECTIONS	REPETITIVE INSPECTION INTERVALS	
		During the initial 250 landings after effective date of of the AD.	During the 251 thru 500 landings after the effective date of the AD.
001-400 (Group I)	50 Landings	50 Landings	30 Landings
401-584 (Group II)	100 Landings	100 Landings	100 Landings

B. If any cracks are found in any flap track, replace the cracked track before further flight. This replacement criterion applies to all future inspections required by this AD.

C. If any corrosion pits, which have completely penetrated the track web, are visible on the outside of any track web, perform a repeat visual external inspection for cracks in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision, at intervals not exceeding 30 landings. Replace the track within 200 landings after discovery of the corrosion pits, or before further flight if a crack is found. These replacement criteria apply to all future inspections required by this AD.

D. If there are not visible track web cracks and no corrosion pits through either web, modify by drilling the 5/8-inch diameter drain holes in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision, within 500 landings or six months after the effective date of this AD, whichever occurs first. Flush the track cavity per instructions in the Service Bulletin.

NOTE: Airplane Flap Tracks previously modified by a single 3/8-inch diameter drain hole must still be modified in accordance with the requirements of this paragraph.

E. Concurrent with the modifications of paragraph D., above, perform an internal borescope inspection of the flaptrack in accordance with procedures defined in Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA-approved revision, to determine if corrosion exists. If corrosion or pitting is found, determine its extent by accomplishing the track web X-ray inspection specified in the service bulletin.

1. Perform repeat external inspections for cracks or corrosion penetration through track webs at the intervals shown in the following Table II:

TABLE II

Maximum Flap Setting Used For landings	Internal Corrosion Classification (b)	Maximum External Inspection Intervals (Landings)	
		Visual Inspection	Magnetic Particle or Penetrant Inspection
25°(a)	Heavy	200	250
	Moderate	400	450
	Light	800	850
30°	Heavy	50	65
	Moderate	100	115
	Light	250	265

(a) Quadrant and alternate extension system must be modified to block off selection of flaps 30 degrees.

(b) Classification terms are defined in Paragraph G. of the Accomplishment Instructions of the referenced service bulletin.

F. Repeat the X-ray inspection specified in paragraph E., above, in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA-approved revision, on tracks indicating medium or light internal web corrosion at intervals not exceeding one year or until heavy web corrosion is indicated, whichever occurs first. This twelve month

inspection interval may be extended to fifteen months, provided a monthly repeat visual inspection is initiated at the twelfth month and continued until the X-ray inspection is accomplished. When the classification of the internal corrosion changes then the inspection interval changes as indicated in paragraph E.1., above. If the previous two X-ray inspections show that corrosion progression has been arrested, the X-ray reinspection interval may be increased from 12 to 24 months until subsequent X-ray inspections indicate noticeable corrosion progression. At that time, the interval for X-ray inspection shall revert to 12 months.

G. Apply organic corrosion inhibitor (BMS 3-23 or equivalent) to the aft cavity of each flap track after the borescope inspection of paragraph E. and at intervals not exceeding 6 months in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision.

H. For purposes of complying with this AD, subject to acceptance by the assigned FAA Principal Maintenance Inspector, the number of landings may be determined by dividing each airplane's hours time in service by the operator's fleet average from takeoff to landing for the airplane type.

I. Upon request of the operator, a FAA Principal Maintenance Inspector, subject to prior approval by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection interval, if the request contains substantiating data to justify the increase for that operator.

J. Special flight permits may be issued in accordance with Section 21.197 and 21.199 of the Federal Aviation Regulations to operate airplanes to a base for the accomplishment of the inspections and/or modifications required by the AD.

K. Alternate means of compliance or other actions which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-4745 became effective October 27, 1983.

This Amendment 39-5215 becomes effective February 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-69866, Seattle, Washington 98168.

PRATT & WHITNEY
Airworthiness Directive
Correction
VOLUME II

86-09-01 PRATT & WHITNEY: Amendment 39-5268. Applies to Pratt & Whitney (PW) JT9D-3A, -7, -7H, -7A, -7AH, -7F, -7J, -20, -59A, -70A, -7Q, and -7Q3 series turbofan engines.

Compliance is required at the next removal of the LPT rotor from the LPT case and vane assembly but not later than December 31, 1989, unless already accomplished.

To prevent low pressure turbine (LPT) case penetration as a result of antirotation pin failures, accomplish the following:

(a) Replace all stainless steel (AMS 5735) LPT antirotation pins with nickel alloy (AMS 5660/5661) LPT antirotation pins on PW JT9D-3A, -7, -7H, -7A, -7AH, -7F, -7J, and -20 series turbofan engines in accordance with the Accomplishment Instructions contained in PW service bulletin (SB) 5292, Revision 3, dated June 24, 1985, or FAA approved equivalent.

(b) Incorporate additional LPT antirotation pins in the 4th, 5th, and 6th stage stator locations on PW JT9D-59A, -70A, -7Q, and -7Q3 series turbofan engines in accordance with the Accomplishment Instructions contained in the PW SB 5507, Revision 3, dated December 5, 1984, or FAA approved equivalent.

Upon request, an equivalent means of compliance may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Aircraft may be ferried in accordance with the provisions of FAR Parts 21.197 and 21.199 to a base where the AD can be accomplished.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

PW SB 5292, Revision 3, dated June 24, 1985, and SB 5507, Revision 3, dated December 5, 1984, are incorporated herein and made part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Pratt & Whitney, Publication Department, P.O. Box 611, Middletown, Connecticut 06457.

These documents also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-21, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

This amendment becomes effective on May 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

GATES LEARJET
Airworthiness Directive
Correction
VOLUME II

82-01-04 R2 GATES LEARJET: Amendment 39-4296 as amended by Amendment 39-4751 is further amended by Amendment 39-5242. Applies to the following models and serial number airplanes certificated in any category:

MODELS	SERIAL NUMBERS
25, 25A	25-003 through 25-066 except 25-061
25B, 25C	25-061, 25-067 through 25-205

COMPLIANCE: Required as indicated, unless previously accomplished.

A) On or before the compliance date (Reference Table I), accomplish the requirements of this paragraph at an FAA certificated maintenance repair agency. However, the modification and inspection of the horizontal stabilizer trim actuator as required in the airplane modification kits referenced in Table I may be performed by another FAA certificated repair agency utilizing qualified technicians who must have recent accessory overhaul experience performing the overhaul and test of the Gates Learjet Horizontal Stabilizer Trim Actuator with the necessary shop equipment (Attachment I hereto) as referenced in Learjet Repair Manual Number 1711-9, or the equivalent equipment.

1) Modify Learjet Models 25, 25A and 25B/C airplane flight control systems, stall warning and control wheel in accordance with the following:

Table I

Gates Learjet Airplane Modification Kit	Learjet Models	Compliance Date/Time
AMK 81-9, *AMK 81-8, and AMK 80-13 Change 3	25 B/C	On or before October 31, 1982
AMK 81-10 Change 1, *AMK 81-8, and AMK 80-13 Change 3	25, 25A	On or before August 31, 1982

* Kit AMK 81-8 does not apply unless Kit AAK 76-4 has been installed.

B) Required Airplane Maintenance Record entry must be accomplished by the facility performing its portion of the AD as prescribed in paragraph A) of this AD.

C) Insert in the appropriate sections of the existing Airplane Flight Manual (AFM) the FAA approved temporary

Airplane Flight Manual Change pertaining to procedures required as a result of the modification of the flight control system in accordance with Airplane Modification Kit, all as listed in Table II below. Upon completion of the modifications required by paragraph A) of this AD and the insertion of the temporary AFM changes or equivalent permanent AFM revision, the identified, more restrictive paragraphs of AD 80-19-11 set forth in Table II below are no longer applicable.

Table II

Learjet AMK	Learjet Model	AFM Change Date	AD 80-19-11 Paragraphs of AD Superseded
AMK 81-10	25, 25A	October 14, 1981	A)2, A)5, A)6
AMK 81-9	25B/C	September 4, 1981	A)2, A)5, A)6

D) To ensure proper operation of the Stall Warning Accelerometer Unit, unless previously inspected in the last 100 hours time-in-service before the effective date of this AD, within the next 50 hours time-in-service, and at intervals not to exceed 220 hours time-in-service thereafter, perform the inspection of the Stall Warning Accelerometer in accordance with Gates Learjet Service Bulletin SB 23/24/25-301B, as appropriate.

E) Prior to accomplishing the modification required by paragraph A) of this AD, contact the FAA office noted in paragraph G) of this AD if any modification or alteration has been performed on the affected airplane for further instruction relative to the compatibility of the modification of this AD.

F) Airplanes may be flown in accordance with FAR 21.197 to a location where modifications required by this AD can be accomplished.

G) Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this proposal who have not already received the applicable service information from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-4296 became effective on January 8, 1982.

Amendment 39-4751 became effective on November 1, 1983.

This Amendment 39-5242 becomes effective April 7, 1986.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

AD 82-01-04 R2

ATTACHMENT I

The stabilizer actuator test stand (P/N ST-00463) is used to functionally test the stabilizer actuator after overhaul. The physical structure of the test must be capable of withstanding a minimum load of 2500 lbs. without any bending or deformation.

The stabilizer actuator is vertically mounted on the test stand with one end stationary and the other end movable through a hydraulic actuator. The test stand consists of the following components:

a. Hydraulic Actuator - The hydraulic actuator is capable of applying a regulated load of 0 to 2500 lbs. on the stabilizer actuator during the entire extend or retract cycles.

b. Hydraulic Pressure Regulator - The pressure regulator is used to select hydraulic pressures applied to the stabilizer actuator during the functional test.

c. Hydraulic Pressure Gauge - The hydraulic pressure gauge is used to monitor hydraulic pressure applied to the stabilizer actuator. The gauge must be certified at least monthly.

d. Digital Position Readout - The digital position readout indicator is used to monitor the travel of the stabilizer actuator. Signals to the indicator are picked up from a rigid mounted linear potentiometer and movable wiper attached to the hydraulic actuator. The digital readout is accurate to 1/1000th of an inch.

e. Linear Scale - A linear scale, graduated in 100th of an inch, is permanently mounted on the test stand to verify the digital readout. A tool of known length is used to verify the linear scale and digital readout before the stabilizer actuator functional test is performed. The tool length must be certified at least yearly.

f. Lapse Timer - A lapse timer is coupled to the control switches and the stabilizer actuator to monitor travel time during the extend and retract cycles. The lapse timer must measure seconds to be accurate to 1/100th of a second.

g. Trim Controller - The trim controller is used to simulate two-speed input to the stabilizer actuator primary motor. The trim controller part number is EM 2079-6.

h. Pre-Select Timer - The pre-select timer is used to check stabilizer actuator travel vs. time, voltage and amperage inputs in accordance with the functional test.

i. Power Supply - The power supply is variable through 0-30 volts DC and 0-30 amperes DC.

j. DC Voltmeter - The DC voltmeter must be capable of measuring 0-30 volts DC and must be certified at least yearly. The voltmeter is used to monitor the voltage inputs to the stabilizer actuator in accordance with the functional test.

k. DC Ammeter - The DC ammeter must be capable of measuring 0-30 amperes DC and must be certified at least yearly. The ammeter is used to monitor the amperes inputs to the stabilizer actuator in accordance with the functional test.

l. Millivolt Meter - The millivolt meter is used to monitor the stabilizer actuator linear potentiometer for a smooth and steady signal output. The meter is 0-50 volts graduated in 100 mv increments.

m. Switches - Necessary switches installed to operate the stabilizer actuator primary and secondary motors to extend or retract.

n. A digital or Simpson 260 meter, not a part of the test stand, is used to verify the resistance of the stabilizer actuator linear potentiometer. The digital or Simpson 260 meter must be certified at least every 90 working days.

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86-16-12 DeHAVILLAND: Amendment 39-5389. Applies to Model DHC-3 (all serial numbers) airplanes certificated in any category.

Compliance: Required as indicated, after the effective date of this AD, unless already accomplished.

To preclude loss of elevator control and to ensure proper operation of the control system, accomplish the following inspections and parts replacement:

(a) Within 25 hours time-in-service (TIS), after the effective date of this AD, visually inspect the following parts:

(1) The elevator pushrod, and the elevator pushrod to rear quadrant attachment bolt, for bending, in accordance with "ACCOMPLISHMENT INSTRUCTIONS" in DeHavilland Service Bulletins (S/B) No. 3/35, Revision A, dated April 11, 1980, and S/B No. 3/43, dated January 18, 1985.

(2) The threaded shank of the elevator pushrod rod ends, for cracks.

(3) All elevator control system cables and pulleys for damage or distortion.

(b) Replace unserviceable parts, prior to further flight, with serviceable parts as follows:

(1) Elevator pushrod, with new pushrod Part Number (P/N) C3-CF-633-1, in accordance with "ACCOMPLISHMENT INSTRUCTIONS" in DeHavilland S/B No. 3/35, Revision A, dated April 11, 1980.

(2) Elevator pushrod to rear quadrant attachment bolt with a new NAS1954-24D bolt, in accordance with paragraph (c) of this AD.

(3) Elevator control system cables and pulleys in accordance with the applicable section of the aircraft maintenance manual.

NOTE: When a parked DHC-3 airplane has been subjected to wind gusts of 60 mph or greater (including helicopter or jet blasts) damage may occur to the elevator control system, and the requirements specified in paragraphs (a) and (b) of this AD should be accomplished again.

(c) If the elevator pushrod to rear quadrant attachment bolt is replaced with a NAS1954-24D bolt, replace the associated hardware and in addition, replace the rudder pushrod to rear quadrant attachment bolt with a NAS1954-24D bolt and the associated hardware in accordance with "ACCOMPLISHMENT INSTRUCTIONS" in DeHavilland S/B No. 3/43 dated January 18, 1985. Torque nuts to 65 in-pounds prior to installation of cotter pins.

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(d) If no damage is found during the inspection as required by paragraph (a) of this AD, within 60 days after the effective date of this AD, unless already accomplished:

(1) Replace the elevator pushrod in accordance with paragraph (b)(1) of this AD, and

(2) Replace the elevator and rudder pushrod to rear quadrant attachment bolts in accordance with paragraph (c) of this AD.

(e) The airplane may be flown in accordance with Federal Aviation Regulations (FAR) 21.197 to a location where the requirements of this AD may be accomplished.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, New York Aircraft Certification Office, ANE-170, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

(g) Upon submission of substantiating data by an owner or operator, through an FAA Maintenance Inspector, the Manager, New York Aircraft Certification Office, FAA, New England Region, may adjust the compliance intervals specified in this AD.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to DeHavilland Aircraft of Canada, Ltd., Downsview, Ontario, Canada, M3K 1Y5 or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on August 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Lester Lipsius, Airframe Branch, ANE-172, New York Aircraft Certification Office, FAA, New England Region, 181 South Franklin Avenue, Valley Stream, New York 11587; telephone (516) 791-6220.

immediately effective by priority letter AD 86-12-02, issued June 5, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Propulsion Section, ANM-174W, Federal Aviation Administration (FAA), Northwest Mountain Region, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1382.

PIPER
Airworthiness Directive
VOLUME I

86-17-01 PIPER AIRCRAFT CORPORATION: Amendment 39-5393. Applies to the following Piper models and serial numbers certificated in any category; except those airplanes equipped with ninety (90) ampere alternators:

MODELS AFFECTED:	SERIAL NUMBERS AFFECTED
PA-28-150/160 Cherokee	28-3378 thru 28-4377
PA-28-180 Archer	28-3378 thru 28-7505259 and 28-E13
PA-28-181 Archer II	28-7690001 thru 28-8190279, 28-8290017, 28-8290018, 28-8290028, 28-8290033, 28-8290034 and 28-8290036
PA-28-235 Cherokee	28-10720 thru 28-7710089 and 28-E11
PA-28-236 Dakota	28-7911001 thru 28-8511020
PA-28-201T Turbo Dakota	28-7921001 thru 28-7921091
PA-28R-180 Arrow I	28R-30004 thru 28R-30481 28R-30483 thru 28R-7130013
PA-28R-200 Arrow II	28R-30482, 28R-35001 thru 28R-7635545
PA-28R-201 Arrow III	28R-7737001 thru 28R-7837317
PA-28R-201T Turbo Arrow III	28R-7703001 thru 28R-7803373
PA-28RT-201 Arrow IV	28R-7918001 thru 28R-8218026
PA-28RT-201T Turbo Arrow IV	28R-7931001 thru 28R-8631006
PA-32-260 Cherokee	32-1 thru 32-7800008
PA-32-300 Cherokee Six	32-40000 thru 32-7940290
PA-32R-300 Lance	32R-7680001 thru 32R-7880068
PA-32RT-300 Lance II	32R-7885001 thru 32R-7985105
PA-32RT-300T Turbo Lance II	32R-7787001 thru 32R-7987126
PA-32-301 Saratoga	32-8006001 thru 32-8106087
PA-32-301T Turbo Saratoga	32-8024001 thru 32-8124030
PA-32R-301 Saratoga SP	32R-8013001 thru 32R-8113094
PA-32R-301T Turbo Saratoga SP	32R-8029001 thru 32R-8129090
PA-34-200T Seneca II	34-7570001 thru 34-8170092

Compliance: Required as indicated, unless already accomplished.

To prevent smoke in the cockpit and possibly complete electrical failure resulting from shorting of ammeter terminal posts, accomplish the following:

(a) Within the next 50 hours time-in-service (TIS) after the effective date of this AD, replace the ammeter(s) with Ammeter Replacement Kit(s), Piper Part No. 765-186, on the above listed airplanes in accordance with the instructions contained in Piper Service Bulletin No. 811A, dated May 12, 1986.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(c) An equivalent method of compliance if used, must be approved by the Manager, Atlanta Aircraft Certification Office, FAA, 1075 Inner Loop Road, College Park, Georgia 30337.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Piper Aircraft Corp., 2926 Piper Drive, Vero Beach, Florida 32960, or the FAA, Rules Docket, Office of Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This AD supersedes AD 80-24-03, Amendment 39-3978.

This amendment becomes effective on August 21, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill H. Trammell, ACE-130A, Atlanta Aircraft Certification Office, FAA, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7781.

86-17-02 ROGERSON HILLER CORP.: Amendment 39-5367. Applies to Model UH-12D, UH-12E, and UH-12E4 series helicopters, including military Models OH-23F and OH-23G, and all those converted in accordance with STC's SH177WE and SH178WE, certificated in any category, equipped with main rotor blade fork P/N 52110-3.

Compliance is required as indicated, unless already accomplished.

To detect cracks and prevent failures which have occurred in the main rotor blade fork P/N 52110-3 at the outboard tension-torsion bar retention bolt hole, accomplish the following:

(a) Within the next 10 hours' time in service after the effective date of this AD, verify that each installed P/N 52110-3 fork has a serial number permanently displayed on its outer surface. Remove from service forks found not to be serialized and replace with serialized parts.

(b) Perform a daily visual check of P/N 52110-3 forks for cracks in the area of the outboard tension-torsion bar retention bolt hole. Washers and nuts need not be removed for this inspection. This check may be performed by the pilot.

NOTE: For the requirements regarding the listing of compliance and method of compliance with this AD in the aircraft's permanent maintenance record, see section 91.173.

(c) On forks having 240 or more hours' time in service on the effective date of this AD, within the next 10 hours' time in service, unless already accomplished within the last 90 hours' time in service, and within each 100 hours' time in service thereafter from the last inspection, accomplish the inspection specified in (e).

(d) On forks having less than 240 hours' time in service on the effective date of this AD, accomplish the inspection specified in (e) prior to the accumulation of 250 hours' time in service and within each 100 hours' time in service thereafter from the last inspection.

(e) Perform a dye penetrant inspection, or FAA-approved equivalent, of the bolt hole and adjacent milled surfaces. For this inspection, remove the nut, washer, and pin.

(f) Replace cracked rotor forks with like serviceable parts prior to further flight.

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 to operate aircraft to a base for the accomplishment of inspections required by this AD.

(h) An alternate method of compliance which provides an equivalent level of safety may be approved by the Manager,

Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

This amendment supersedes Amendment 39-3540 (44 FR 50035), AD 79-18-04.

This amendment becomes effective August 22, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Richard Yarges, Aerospace Engineer, Airframe Section, ANM-120S, Seattle Aircraft Certification Office, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168, telephone (206) 431-2925.

86-17-03 SOCATA: Amendment 39-5392. Applies to Model TB20 (Serial Numbers up to and including No. 479) airplanes certificated in any category.

Compliance: Required within 100 hours time-in-service after the effective date of this AD, unless already accomplished.

To assure the integrity of the trim control system, accomplish the following:

(a) Replace the attachment of the elevator tab control to the elevator tab levers in accordance with Operation II of the Description paragraph of SOCATA Service Bulletin (S/B) No. 24, dated January 1985, as follows:

(1) Remove and discard the bolt, washers, spacer, nut and pin attaching the elevator trim tab rod eye-end-fitting to the trim tab levers. (Ref. Detail A of the figure in SOCATA Service Bulletin No. 24)

(2) Measure the rod length in order to reposition the eye-end-fitting.

(3) Remove the eye-end-fitting.

(4) Bore the eye-end-fitting at dia. 10 mm (.3937 inches + .0009, - .0000).

(5) Bore the two tab levers at dia. 6 mm (.2363 inches + .0007, - .0000).

(6) Grease the new bolt of dia. 6 mm (nominal 0.24 in.).

(7) Install the eye-end-fitting at the rod length measured using a new lock plate (Z00.5544.1.10.000).

(8) Install the dia. 6 mm bolt, the spacer and washers according to Detail A of the figure shown in SOCATA S/B No. 24.

(9) Tighten the castellated nut (apply a tightening torque of 0.42 m.daN - 37 inch.Pound), if necessary loosen to the lower notch.

(10) Install pin and grease.

(11) Bore the tab levers according to Detail B of the figure shown in SOCATA S/B No. 24 to 5 mm (.1969 inches + .0003, -.0000) diameter.

(12) Grease the bolt.

(13) Install the spacer, the dia. 5 mm (nominal 0.20 in.) bolt, the washer and nut according to Detail B of the figure in SOCATA S/B No. 24.

(14) Tighten the nut (apply a tightening torque of 0.25 m.daN - 23 inch.Pound).

(15) Check the tab deflection angles (SOCATA TB20 Maintenance Manual Section V.5).

(b) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where this AD can be accomplished.

(c) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to SOCATA Groupe Aerospatiale, B. P. 38, 65001 Tarbes, France; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on September 22, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. T. Ebina, Brussels Aircraft Certification Office, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium; Telephone 513.38.30; or Mr. John P. Dow Sr., FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

86-17-07 PIPER AIRCRAFT CORPORATION: Amendment 39-5400. Applies to the following model airplanes certificated in all categories:

MODELS AFFECTED:	SERIAL NUMBERS AFFECTED:
PA-23-150/160 Apache	23-1 through 23-2046
PA-23-235 Apache	27-505 through 27-622
PA-23-250 Aztec	27-1 through 27-8154030
PA-31-300/310/325 Navajo	31-5 through 31-8312019
PA-31-350 Navajo Chieftain	31-5001 through 31-8452021
PA-31P Pressurized Navajo	31P-3 through 31P-7730012
PA-31-350 T1020	31-8253001 through 31-8553002
PA-31P-350 Mojave	31P-8414001 through 31P-8414050
PA-31T Cheyenne	31T-7400002 through 31T-7720069
PA-31T Cheyenne II	31T-7820001 through 31T-8120104
PA-31T1 Cheyenne I	31T-7804001 through 31T-8104101
PA-31T1 Cheyenne IA	31T-8304001 through 31T-1104017
PA-31T2 Cheyenne IIXL	31T-8166001 through 31T-1166006
PA-31T3 T1040	31T-8275001 through 31T-8375005, 31T-8475001 and 31T-5575001
PA-42 Cheyenne III	42-7800001, 42-7800002, 42-7801003, 42-7801004, and 42-8001001 through 42-8001106
PA-42 Cheyenne IIIA	42-8301001, 42-8301002, 42-5501003 through 42-5501023, 42-5501025

Compliance: Required within the next 25 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent a gear-up landing resulting from loss of hydraulic system capability, accomplish the following:

(a) Replace all hydraulic hoses identified as Piper Part Number 17766-02 (465-138), and having a smooth rubber surface and a blue colored end nut, with hoses of the same part number having a woven outer covering and black colored end nut, in accordance with the criteria and instructions contained in the Piper Service Bulletin No. 822, dated April 2, 1986.

NOTE: These hoses were available for installation starting February 1, 1985, and may have been installed as spares at any subsequent time.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) An equivalent method of compliance may be approved by the Manager, Atlanta Aircraft Certification Office, FAA, 1075 Inner Loop Road, College Park, Georgia 30337.

All persons affected by this directive may obtain copies of the document(s) referred herein upon request to Piper Aircraft Corporation, Vero Beach, Florida, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on September 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Trammell, Atlanta Aircraft Certification Office, ACE-130A, FAA, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7781.

86-17-08 GROB WERKE GmbH (Burkhart Grob): Amendment 39-5399. Applies to Models G103 TWIN II and G103A TWIN II ACRO gliders serial numbers 33879- (K-117) through 34012-(K-245) certificated in any category.

Compliance is required as indicated unless already accomplished.

To prevent jamming of the outer airbrake pivot lever which could result in the loss of airbrake control, accomplish the following:

(a) Within the next 10 hours time-in-service after the effective date of this AD, measure the airbrake pivot lever stop pad length in accordance with Part 1 of the "Instructions" section of Grob Technical Information No. TM 315-31, dated October 7, 1985.

(b) If a stop pad of a length of less than 36 mm is found during the inspection required by Paragraph (a) of this AD, or if a stop pad is found that can be wedged under the wingskin, before further flight, install a stop pad extension in accordance with part 2 of the "Instructions" section of Grob Technical Information No. TM 315-31, dated October 7, 1985, and Grob Repair Instructions No. 315-31, dated October 7, 1985.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, Telephone No. 513.38.30 ext. 2710 or the Manager, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone No. (516) 791-6680.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Brussels Aircraft Certification Office or the Manager, New York Aircraft Certification Office, may adjust the compliance time specified in this AD.

Grob Technical Information No. TM 315-31, dated October 7, 1985, and Grob Repair Instructions No. 315-31, dated October 7, 1985, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Grob Systems, Inc., Aircraft Division, I-75 and Airport Drive, Bluffton, Ohio 45817. These documents also may be examined at the Office of Regional Counsel, ANE-7, FAA New England Region, 12 New England

Executive Park, Burlington, Massachusetts 01803, Room 311, Rules Docket 86-ANE-32, between the hours of 8:00 am and 4:30 pm; Monday thru Friday, except Federal holidays.

This amendment becomes effective on September 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, Telephone 513.38.30 ext. 2710, or John J. Maher, ANE-172, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone No. (516)791-6221.

86-17-09 BELL HELICOPTER TEXTRON, INC.: Letter issued August 21, 1986. Applies to all Bell Helicopter Model 212 helicopters, S/N 30501 through 30999, 31101 through 31273, and 31275; 32101 through 32142 and 32201 through 32262 that have T/R hub and blade assembly, P/N 212-011-701-001 installed, certified in any category.

Compliance required as indicated unless already accomplished.

To prevent failure of the tail rotor control, accomplish the following:

(a) Within 25 hours' time in service after receipt of this AD, visually inspect the T/R hub assembly P/N 212-011-701-3, in accordance with Part I of Bell Helicopter Textron, Inc. (BHTI), Alert Service Bulletin (ASB) 212-86-39, Revision "A," dated July 23, 1986.

(1) If the (P/N) 212-011-716-1 T/R trunnion housing is cracked or there is axial play in the T/R trunnion, or if there are excess balance washers, comply with Part II of the Alert Service Bulletin before further flight.

(2) Repeat this inspection every 25 hours' time in service until paragraph (b) of this AD is accomplished.

(b) Remove the 212-011-701-1 T/R hub and blade assembly and inspect the trunnion bearing housing, P/N 212-011-716-1, as detailed in Part II of BHTI ASB 212-86-39, Revision "A,", dated July 23, 1986, within 150 hours' time in service or within 60 days after the issue date of this AD, whichever occurs first. Replace any housing having an end web thickness of .059 inch or less with a serviceable part.

An alternate method of compliance or adjustment of the compliance time, which provides an equivalent level of safety, may be approved by the Manager, Helicopter Certification Branch, Aircraft Certification Division, FAA, Southwest Region.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Tom K. Henry, Helicopter Certification Branch, Aircraft Certification Division, ASW-170, FAA, Southwest Region, P.O. Box 1689, Fort Worth, Texas 76101, (817) 624-5168.

86-17-10 BELL HELICOPTER TEXTRON, INC.: Letter issued August 21, 1986. Applies to all Bell Helicopter Models 205 and 205A-1 helicopters, which have retrofit kit, P/N 212-704-129-101, installed (reference Bell Service Instructions (S.I.)) 212-68, May 29, 1981, certified in any category.

Compliance required as indicated unless already accomplished.

To prevent failure of the tail rotor control, accomplish the following:

(a) Within 25 hours' time in service after receipt of this AD, visually inspect the T/R hub assembly P/N 212-011-701-3, in accordance with Part I of Bell Helicopter Textron, Inc. (BHTI), Alert Service Bulletin (ASB) 205-86-24, Revision "A," dated July 23, 1986.

(1) If the (P/N) 212-011-716-1 T/R trunnion housing is cracked or there is axial play in the T/R trunnion, or if there are excess balance washers, comply with Part II of the Alert Service Bulletin before further flight.

(2) Repeat this inspection every 25 hours' time in service until paragraph (b) of this AD is accomplished.

(b) Remove the 212-011-701-1 T/R hub and blade assembly and inspect the trunnion bearing housing, P/N 212-011-716-1, as detailed in Part II of BHTI ASB 205-86-24, Revision "A," dated July 23, 1986, within 150 hours' time in service or within 60 days after the issue date of this AD, whichever occurs first. Replace any housing having an end web thickness of .059 inch or less with a serviceable part.

An alternate method of compliance or adjustment of the compliance time, which provides an equivalent level of safety, may be approved by the Manager, Helicopter Certification Branch, Aircraft Certification Division, FAA, Southwest Region.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Tom K. Henry, Helicopter Certification Branch, Aircraft Certification Division, ASW-170, FAA, Southwest Region, P.O. Box 1689, Fort Worth, Texas 76101, (817) 624-5168.

86-17-12 BELL HELICOPTER TEXTRON, INC.: Letter issued August 22, 1986. Applies to Model 222B and 222U helicopters certificated in any category.

(Airworthiness Docket No. 86-ASW-29)

Compliance is required as indicated, unless already accomplished.

To prevent an engine power turbine wheel burst accomplish the following:

(a) Within the next 20 hours' time in service after receipt of this AD but not later than 30 days after receipt of this AD, rewire the No. 2 and No. 3 bearing scavenge chip detectors to activate a separate chip light in the cockpit for each engine. This change may be made by operators while awaiting kits from the manufacturer provided the details of the design are approved by the Manager, Helicopter Certification Branch, Aircraft Certification Division, FAA, Southwest Region and are accomplished in accordance with the standard practices of Advisory Circular 43.13-1A, Chapter 15, Section 2. The chip light installations are not required to be installed on the cockpit annunciator light panel but must be easily visible to the cockpit crew, be red in color, and include a light test feature. Each engine light must be identified by a suitable placard. After installation, check the function of the chip lights by shorting each chip plug and checking the corresponding chip light for illumination.

(b) Before further flight and until such time as the No. 2 and No. 3 bearing scavenge chip lights are added, revise the Rotorcraft Flight Manual Emergency/Malfunction Section 3 by changing the current engine chip light procedures to read as follows:

Eng 1 - Chip (Amber) Throttle (affected engine) - Closed
Land as soon as practical

or

Eng 2 - Chip (Amber)

(c) Upon installation of the No. 2 and No. 3 bearing scavenge chip lights, revise the Rotorcraft Flight Manual Emergency/Malfunction Section 3 by deleting the changes made in paragraph (b) of this AD and by adding the following procedures:

Eng 1 - Chip (Red)	Throttle (affected engine) - Closed Land as soon as practical

or

Eng 2 - Chip (Red)

(d) Upon installation of the No. 2 and No. 3 bearing scavenge chip lights, revise the Rotorcraft Flight Manual Normal Procedures-Interim and Prestart Check by adding the following:

Eng 1 - Chip (Red), Eng 2 - Chip (Red) -
Activate light test feature and check illumination.

An alternate method of compliance or adjustment of the compliance time, which provides an equivalent level of safety, may be approved by the Manager, Helicopter Certification Branch, Aircraft Certification Division, FAA, Southwest Region.

FOR FURTHER INFORMATION CONTACT:

Tyrone D. Millard, Helicopter Certification Branch, Aircraft Certification Division, ASW-170 , FAA, Southwest Region, P.O. Box 1689, Fort Worth, Texas 76101 (817) 624-5177.

86-17-11 MAULE AEROSPACE TECHNOLOGY (Formerly Maule Aircraft Corporation): Amendment 39-5401. Applies to Models M-5-180C (S/N 8001C through 8014C, 8016C through 8019C, and 8021C); M-5-210C (S/N 6001C through 6206C); M-5-220C (S/N 5001C through 5057C); and M-5-235C (S/N 7001C through 7045C, and 7047C through 7052C) airplanes certificated in any category.

Compliance: Required within the next 25 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent restricted fuel flow in the fuel crossover supply line, accomplish the following:

(a) Visually inspect the fuel crossover supply line as follows:

(1) If the line is found to be collapsed, install a serviceable line aft of the front fuselage seat support frame in accordance with Maule Service Bulletin No. 7, undated.

(2) If the line is not collapsed but is installed forward of the front fuselage seat support frame, remove and reinstall it aft of the front fuselage seat support frame in accordance with Maule Service Bulletin No. 7.

(3) If the line is not collapsed and is installed aft of the front fuselage seat support frame, in accordance with Maule Service Bulletin No. 7, no further action is required.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by Manager, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Maule Aerospace Technology, Inc., Route 5, Box 318, Moultrie, Georgia 31768; or the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on September 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Gil Carter, ACE-140A, Aerospace Engineer, Propulsion Branch, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, GA 30337; Telephone (404) 763-7435.

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86-18-02 BEECH: Amendment 39-5395. Applies to Models 65-90 and 65-A90 (S/N LJ-68 thru LJ-317); 65-A90-1, 65-A90-2, 65-A90-3, 65-A90-4, B90, C90 (all S/N); C90A (S/N LJ-1063 thru LJ-1087, except LJ-1085); E90, 100, A100 and B100 (all S/N) airplanes, certified in any category, including those airplanes equipped with spar reinforcing straps, incorporated by Supplemental or original Type Certificates.

Compliance: Required as indicated after the effective date of this AD, unless already accomplished.

To detect possible fatigue cracking of the wing main spar lower cap and associated structure, accomplish the following:

(a) On all airplanes with more than 5,000 hours time-in-service (TIS), within the next 200 hours TIS, or within one calendar year, whichever occurs first, inspect the wing attach fittings, center section and outboard wing spar caps by visual, fluorescent penetrant and eddy current methods as specified in the applicable section of Beech Structural Inspection and Repair Manual, Part No. 98-39006, revised December 20, 1984, or later revision (BSIR Manual).

The inspection must be performed by personnel specifically trained by Beech Aircraft Corporation.

NOTE 1: A listing of approved maintenance facilities may be obtained from the sources listed in paragraph (f) of this AD.

(b) If any crack is found in a main spar lower cap or fitting, prior to further flight replace the defective part using the procedures specified in the BSIR Manual or with other instructions provided by Beech Aircraft Corporation.

(c) If a crack is found, a report must be submitted within one week to the FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209. (Reporting approved by the Office of Management and Budget under OMB NO. 2120-0056.)

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(e) The compliance time for the inspections specified in this AD may be extended up to ten percent to coincide with the next wing bolt inspection per AD 85-22-05 if applicable.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Beech Aircraft Corporation, Wichita, Kansas 67201 or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

NOTE 2: The wing bolt inspection and outboard wing corrosion inspections specified in the BSIR Manual are recommended but not required by this AD.

This amendment becomes effective on September 26, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Don Campbell, Wichita Aircraft Certification Office (ACO), ACE-120W, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4409.

86-18-05 AVCO LYCOMING TEXTRON: Letter issued August 28, 1986. Applies to Avco Lycoming Textron LTS 101-750 series turboshaft engines.

This priority letter AD is effective immediately upon receipt.

To prevent failure of the power turbine thrust bearing, which could lead to uncontained failure of the power turbine disk, accomplish the following, unless already accomplished:

(a) Inspect, daily, the engine rear bearing housing scavenge debris monitor (chip detector), Part Number (P/N) 4-301-152-01, for evidence of metal debris or carbon.

NOTE: The scavenge debris monitor, P/N 4-301-152-01, should be oriented to the six o'clock (bottom dead center) position within plus-minus 45 degrees.

(1) If any metal debris is evident on the monitor, prior to further flight, accomplish the following:

(i) Disassemble the rear bearing support housing assembly and inspect the Number 2 and 3 bearings and associated components.

NOTE: Refer to the appropriate engine maintenance manual instructions.

(ii) Accomplish the lubrication system contamination trouble shooting requirements per the appropriate engine maintenance manual, Chapter 72-00-00, to ensure the remainder of the engine has not been contaminated.

(iii) Check the function of the scavenge debris monitor and warning light system by shorting the debris monitor contacts and checking for illumination of the cockpit warning light. If the light does not illuminate, correct the condition.

NOTE: Refer to the appropriate aircraft maintenance manual instructions.

(2) If carbon is evident on the monitor, prior to further flight, accomplish the following:

(i) Remove and inspect the scavenge debris monitor screen.

(A) If any metal debris is evident on the screen, prior to further flight, accomplish Paragraph (1) above.

(B) If carbon is evident on the screen, prior to further flight, perform a clogging inspection of the Number 2 and 3 bearing oil jets per the appropriate engine maintenance manual, Chapter 79-00-00 for the LTS 101-750A-1 engine and Chapter 72-00-00 for the remaining engine models. If the clogging inspection limits are exceeded, disassemble the rear bearing support housing assembly to correct the condition and inspect the Number 2 and 3 bearings and associated components.

NOTE: Refer to the appropriate engine maintenance manual instructions.

(b) Check the engine oil pump output pressure within 50 hours time in service after the effective date of this AD, unless already accomplished, and thereafter whenever the oil pump is changed or when oil pressure adjustment is required, as follows:

(1) Install a tee fitting in the line connecting the oil pressure transmitter to the engine oil pump and install a direct reading wet pressure gauge (0-150 psig, calibrated to plus-minus 5.0 percent at 100 psig).

(2) Start the engine and warm the oil to 150 degrees Fahrenheit minimum. Increase the gas producer speed (Ng) to 90 percent minimum, or the maximum speed which will allow the helicopter to maintain ground contact, whichever occurs first. Stabilize at this Ng for at least one minute.

(3) Adjust the engine oil pressure to the following gauge limits by removing the lockwire from the slotted oil pressure adjustment slug on the right side of the oil pump and filter housing assembly, and turning the slug clockwise to increase pressure or counterclockwise to decrease pressure, (one turn equals approximately 15 psig):

ENGINE MODEL	LIMIT
LTS 101-750C-1	90 plus-minus 10 psig
LTS 101-750A-1/A-3, 750B-1/B-2	95 plus-minus 5 psig

If, during this check, the engine oil pump pressure was found to be adjusted to 70 psig or less, prior to further flight, disassemble the rear bearing support housing assembly and inspect the Number 2 and 3 bearings and associated components.

NOTE: Refer to the appropriate engine maintenance manual instructions.

(4) Verify that the aircraft oil pressure indicator reads in the green arc. If, upon completion of the check, the aircraft pressure gauge does not indicate within the green band, the aircraft indicating system must be checked and corrected.

NOTE: Refer to the appropriate aircraft maintenance manual instructions.

(5) Remove the wet gauge and tee fitting, and reconnect the oil pressure transmitter.

(6) Ensure that the slotted oil pressure adjustment slug is lockwired after proper adjustment is made.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through a Federal Aviation Administration maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Robbin Goulet, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7089.

GROB WERKE GMBH
Airworthiness Directive
VOLUME I

86-18-09 GROB WERKE GMBH (BURKHART GROB): Amendment 39-5410. Applies to Model G103 TWIN ASTIR gliders serial numbers 3000 through 3291, and 3000-T-1 through 3284-T-44, certificated in any category.

Compliance is required as indicated unless already accomplished.

To prevent failure of the rudder control rear parallel lever P/N II 103-4320.05 which could result in loss of rudder control, accomplish the following:

(a) Within the next 10 hours time-in-service after the effective date of this AD, and thereafter at intervals not to exceed 10 hours time-in-service after the last inspection, until compliance with Paragraph (c) is accomplished, visually inspect the rear parallel lever in the area of the left and right boreholes, using a 10 power or greater magnifying glass, for cracks in accordance with Part 1 of the "Instructions" section of Grob Technical Information No. TM 315-30, dated October 1, 1985.

(b) If a cracked lever is found during the inspection required by Paragraph (a) of this AD, before further flight, replace the rear parallel lever with a stronger new parallel lever in accordance with part 2 of the "Instructions" section of Grob Technical Information No. TM 315-30, dated October 1, 1985, and Grob Repair Instructions No. 315-30, dated October 1, 1985.

(c) Within the next 30 hours time-in-service but no later than 60 days after the effective date of this AD, replace any rear parallel lever not replaced in accordance with Paragraph (b) of this AD, with a stronger rear parallel lever in accordance with Part 2 of the "Instructions" section of Grob Technical Information No. TM 315-30, dated October 1, 1985, and Grob Repair "Instructions" No. 315-30, dated October 1, 1985.

NOTE: Stronger rear parallel lever does not have a new part number. It can be identified as it is made of stock aluminum, not a casting as the original part.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, Telephone No. 513.38.30 ext. 2710 or the Manager, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone No. 516-791-6680.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager,

Brussels Aircraft Certification Office, or the Manager, New York Aircraft Certification Office, may adjust the compliance time specified in this AD.

Grob Technical Information No. 315-30 dated October 1, 1985, and Grob Repair Instructions No. 315-30 dated October 1, 1985, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Grob Systems, Inc., Aircraft Division, I-75 and Airport Drive, Bluffton, Ohio 45817. These documents also may be examined at the Office of Regional Counsel, ANE-7, FAA New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Room 311, Rules Docket 86-ANE-36, between the hours of 8:00 am and 4:30 pm; Monday thru Friday, except Federal holidays.

This amendment becomes effective on September 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, Telephone 513.38.30 ext. 2710, or John J. Maher, ANE-172, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone No. (516) 791-6221.

BELL
Airworthiness Directive
Revision
VOLUME I

86-17-12 R1 BELL HELICOPTER TEXTRON, INC.: Letter issued August 22, 1986, and this letter issued September 3, 1986. Applies to Model 222B and 222U helicopters certificated in any category.

(Airworthiness Docket No. 86-ASW-29)

Compliance is required as indicated, unless already accomplished.

To prevent an engine power turbine wheel burst accomplish the following:

(a) Within the next 20 hours' time in service after receipt of this AD but not later than 30 days after receipt of this AD, rewire the No. 2 and No. 3 bearing scavenge chip detectors to activate a separate chip light in the cockpit for each engine. This change may be made by operators while awaiting kits from the manufacturer provided the details of the design are approved by the Manager, Helicopter Certification Branch, Aircraft Certification Division, FAA, Southwest Region and are accomplished in accordance with the standard practices of Advisory Circular 43.13-1A, Chapter 15, Section 2. The chip light installations are not required to be installed on the cockpit annunciator light panel but must be easily visible to the cockpit crew, be red in color, and include a light test feature. Each engine light must be identified by a suitable placard. After installation, check the function of the chip lights by shorting each chip plug and checking the corresponding chip light for illumination.

(b) Before further flight and until such time as the No. 2 and No. 3 bearing scavenge chip lights are added, revise the Rotorcraft Flight Manual Emergency/Malfunction Section 3 by changing the current engine chip light procedures to read as follows:

Eng 1 - Chip (Amber)

or — Throttle (affected engine) - Closed
Land as soon as practical

Eng 2 - Chip (Amber)

(c) Upon installation of the No. 2 and No. 3 bearing scavenge chip lights, revise the Rotorcraft Flight Manual Emergency/Malfunction Section 3 by deleting the changes made in paragraph (b) of this AD and by adding the following procedures:

Eng 1 - Chip (Red)

or — Throttle (affected engine) - Closed
Land as soon as practical

Eng 2 - Chip (Red)

(d) Upon installation of the No. 2 and No. 3 bearing scavenge chip lights, revise the Rotorcraft Flight Manual Normal Procedures-Interior and Prestart Check by adding the following:

Eng 1 - Chip (Red), Eng 2 - Chip (Red)
Activate light test feature and check illumination.

An alternate method of compliance or adjustment of the compliance time, which provides an equivalent level of safety, may be approved by the Manager, Helicopter Certification Branch, Aircraft Certification Division, FAA, Southwest Region.

NOTE: Bell Helicopter Alert Service Bulletin Nos. 222-86-37, dated 8-29-86, and 222U-86-12, dated 8-29-86, have been determined to meet the requirements of this AD. The engineering design aspects of the alert service bulletins are approved and compliance with the appropriate bulletin constitutes an acceptable means of compliance with this AD.

Airworthiness directive issued August 22, 1986, became effective upon receipt.

This airworthiness directive, 86-17-12 R1, issued September 3, 1986, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Tyrone D. Millard, Helicopter Certification Branch, Aircraft Certification Division, ASW-170, FAA, Southwest Region, P.O. Box 1689, Fort Worth, Texas 76101, (817) 624-5177.

TELEDYNE CONTINENTAL
Airworthiness Directive
Revision
VOLUME I

86-13-04 R1 TELEDYNE CONTINENTAL MOTORS (TCM): Letter issued September 5, 1986, to amend Amendment 39-5345. Applies to cylinder assemblies (part number stamped on flange of cylinder) with P/N's 643985, 646100, 646101, 646652, 646657, 649162, 649169 including all these numbers with all A dash numbers as a suffix, manufactured on or after January 1, 1985, with 485 total hours or less and installed on, but not limited to, the following Teledyne Continental Motors (TCM) Engines:

NEW ENGINES	SERIAL NUMBERS
GTSIO-520-H	607068 thru 607070
-K	605164
-L	608669 thru 608673
-M	606979 thru 606997
-N	610450 thru 610462
TSIO-520-BE	528133 thru 528242, 528244 thru 528246, 528252 thru 528256, 528259, 528260, 528263, 528270
-CE	530045 thru 530127, 530131, 530132
-C	501603 thru 501610
-EB	510802 thru 510809
-G	507066
-H	506883 thru 506885
-M	520742 thru 520824, 520829 thru 520835, 520837, 520838
-NB	521585 thru 521615
-P	513908 thru 513910
-R	522588 thru 522602, 522604, 522605
-UB	527063 thru 527080
-VB	529014 thru 529060
-WB	518895 thru 518906
IO-520-BB	578073, 578084 thru 578151, 578155, 578156, 578166
-CB	576237 thru 576272
-D	575717, 575747 thru 575806
-E	556594 thru 556603
-F	574844 thru 574988
-K	557516 thru 557518
-L	577121 thru 577147, 577149 thru 577153
-MB	575043 thru 575046
IO-550-B	675125 thru 675237, 675239 thru 675244, 675246 thru 675256, 675258 thru 675266, 675273, 675274, 675277, 675278
-C	676156 thru 676231, 676233 thru 676248, 676250 thru 676271

REBUILT ENGINES

GTSIO-520-C	155546 thru 155550
-D	219429 thru 219435
-H	235236 thru 235290, 235293 thru 235298, 267000 thru 267003
-K	226106 thru 226110
-L	245882 thru 245990, 245992 thru 246008, 246011 thru 246014, 246016 thru 246021, 246023, 246024
GTSIO-520-M	243217 thru 243364, 243366, 243367, 243369 thru 243381
-N	241300, 265000 thru 265039, 265041
TSIO-520-AF	245205
-BB	236937 thru 236951
-B	176485 thru 176522
-C	178289 thru 178297
-EB	242984 thru 242999
-E	183816 thru 183939, 183941 thru 183943, 183947
-G	216022 thru 216025
-H	217173 thru 217187
-J	218907 thru 218924
-K	224583, 224584
-LB	237237 thru 237241, 237245, 237246
-L	241883 thru 241900
-M	230223, 230225, 248601 thru 248628, 248632 thru 248638, 248642
-NB	244933 thru 244999, 266500, 266501, 266503 thru 266511, 266513 thru 266517, 266521, 266525
-N	228481 thru 228505, 228509 thru 228516
-P	236453 thru 236467
-R	245645 thru 245696
-T	239316 thru 239321
-UB	240981 thru 241000, 248851 thru 248854, 248858
-VB	248288 thru 248499, 266600 thru 266681, 266683 thru 266685, 266687, 266689, 266691, 266699 thru 266702
-WB	248160 thru 248203, 248205 thru 248217
IO-520-A	112547 thru 112569
-BA	241763 thru 241800, 249251 thru 249425, 249427 thru 249429, 249433 thru 249443, 249445, 249446, 249448 thru 249453, 249457
-BB	236000, 236789, 248500 thru 248568, 248572, 248573, 248575
-B	234758
-CB	244047, 244067 thru 244110, 244112 thru 244123, 244126, 244127, 244130, 244131
-C	243728, 243766 thru 243999, 267500, 267505 thru 267510, 267513 thru 267516, 267527

-D	175381 thru 175531, 175534 thru 175536, 175540 thru 175556, 175559, 175560, 175563, 175565 thru 175567
-E	215674 thru 215690
-F	247574, 247577, 247607 thru 247727, 247731 thru 247742, 247744, 247746 thru 247750, 247752 thru 247756, 247762, 247766, 247767
-J	216515
-K	224045, 224046
-L	242834 thru 242896, 242899
-MB	236383 thru 236400, 266000 thru 266017, 266019
-M	235728 thru 235787, 235789 thru 235793
IO-550-B	249104 thru 249122

Compliance is required within the next five flight hours after the effective date of this AD, unless already accomplished.

To prevent possible cylinder head to barrel separation, engine failure and/or engine compartment fire, accomplish the following:

I. For the above cylinder assembly part numbers installed on engines including those serial numbered engines listed above:

(a) Determine the part number for each cylinder assembly (part number is stamped on flange of cylinder barrel) and the date of manufacture (month and year of manufacture are stamped underneath rocker cover in the face of the rocker shaft boss).

(1) If the cylinder assembly part number and date of manufacture are as listed above, proceed with paragraphs (b), (c), (d), (e), and (f).

(2) If the cylinder assembly part number and date of manufacture are not as listed above, proceed to paragraph (f). No further inspections are required by this AD.

(b) Visually inspect all cylinders for oil stains or leakage between the first and second barrel fins from the bottom of the head casting. The area of concern on direct drive engines is at the 12 o'clock position on the 1-3-5 cylinder side and the 6 o'clock position on the 2-4-6 side. On the GTSIO series engine, the area of concern is at the 6 o'clock position on the 1-3-5 cylinder side and the 12 o'clock position on the 2-4-6 cylinder side.

(c) Pressure check all cylinder assemblies using a differential compression tester. The piston should be as close to BDC (Bottom Dead Center) as possible to insure the piston and rings are below the inspection area specified in Paragraph (b) but still keeping both valves closed and maintaining pressure in the cylinder. With 80 PSIG (pounds per square inch gauge) air pressure in the cylinder, check the area specified in Paragraph (b) with a soap/water solution and inspect for any leakage.

(d) If any leakage is noted from the above inspection and/or pressure check, the cylinder assembly must be changed before further flight.

(e) This visual inspection and pressure check must be repeated at intervals not to exceed 50 flight hours until the last inspection and pressure check required by this AD has been accomplished. The last inspection and pressure check required by this AD must occur between 440 hours and 490 hours of cylinder operation. However, these repetitive inspections and pressure checks may be discontinued when suspect cylinder assemblies have been replaced with assemblies having a date of manufacture before January 1985 or by approved replacement cylinder assemblies having different part numbers.

(f) Make appropriate Engine Logbook entry.

II. For cylinder assemblies not installed on engines:

Confirm a manufacture date stamp of 1-85 (January 1985) or subsequent (month and year of manufacture are stamped underneath rocker cover in the face of the rocker shaft boss), then notify Teledyne Continental Motors for disposition and replacement.

NOTES: (a) Teledyne Continental Motors Service Bulletin No. M86-7, Rev. 3, dated 16 June 1986, addresses this subject.

(b) The manufacturer recommends continuing repetitive inspections at 100 hours intervals or at annual inspection.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337.

Amendment 39-5345 became effective July 11, 1986.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Robert R. Goodall, Aerospace Engineer, Propulsion Branch, ACE-140A, Atlanta Aircraft Certification Office, Federal Aviation Administration, 1075 Inner Loop Road, College Park, Georgia 30337, telephone (404) 763-7435.

V. 1 bk. 2/86-19

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MIKE MONRONEY AERONAUTICAL CENTER
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125

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86-19-10 MOONEY AIRCRAFT CORPORATION: Amendment 39-5408. Applies to Models M20 and M20A (all serial numbers) airplanes certificated in any category.

Compliance: As indicated in the body of the AD.

To preclude structural failure due to deteriorated wooden structures, accomplish the following:

(a) Within the next 30 days after the effective date of this AD, if AD 76-15-01 has not been previously complied with, or within 12 calendar months after the last 12 month repetitive inspection required by AD 76-15-01, whichever is applicable, and each 12 months thereafter accomplish the wood structure proof load tests, modifications and visual inspections specified in paragraphs (d), (e), (f) and (g) of this AD and repair all discrepancies found prior to further flight.

(b) The empennage proof load tests and modification and inspection requirements of paragraphs (a), (d) and (e) are not required on airplanes modified with an all-metal empennage installed per Mooney Service Bulletin (S/B) Kit No. M20-170-1.

(c) Within the sixth month after accomplishment of the inspections required by paragraph (a) of this AD, or within 12 calendar months after the last six month interval repetitive inspection required by AD 76-15-01 and each 12 months thereafter, whichever is applicable, accomplish the empennage and wing inspections specified in Parts IIA, III8, III9, and III10 of Mooney S/B No. M20-170A dated February 24, 1969, and repair all discrepancies found prior to further flight.

(d) On airplanes not equipped with an all-metal empennage, proof load test the empennage and supporting structure as follows:

(1) Apply proof loads to the vertical fin spar as shown in Figure 1 of this AD. Apply the load to the right side and then to the left side. Apply proof loads to the rudder hinges of the fin as shown in Figure 3 of this AD. Apply hinge proof loads to the right side and then to the left side.

(2) After the initial proof load testing in paragraph (d)(1) of this AD, at intervals not to exceed one year, apply the proof loads to the vertical fin spar and rudder hinges as shown in Figures 1 and 3 of this AD. Apply the loads in one direction only during each 12 month inspection cycle by applying the loads to the right side at the end of the first interval and alternating load direction similarly thereafter.

(3) If the empennage fails during the proof loading specified in paragraphs (d)(1) or (d)(2) of this AD, prior to further flight, replace the wood empennage with an all-metal empennage in accordance with the instructions contained in Mooney S/B Kit No. M20-170-1. The empennage is considered to

have failed when complete separation of the vertical fin from the horizontal stabilizer occurs, fin spar cracks occur, the hinge separates or loosens from the fin, other wood failures occur, glue joint failures occur, or permanent deformation occurs as shown in Figure 2 of this AD.

(e) Modify and inspect the wood empennage as follows:

(1) If fin failure did not occur during the proof load application specified in paragraphs (d)(1) and (d)(2) of this AD, prior to further flight, modify the vertical fin and visually inspect the empennage as follows:

(i) Modify the vertical fin by adding inspection access holes and reinforcing straps in accordance with Parts IB and IC of Mooney S/B No. M20-170A dated February 24, 1969, unless previously accomplished.

(ii) Visually, and if necessary using the methods in paragraph (h) of this AD, inspect the empennage in accordance with S/B No. M20-170A dated February 24, 1969, Parts IA and II and repair any discrepancies found prior to further flight.

(f) Prepare the wing and wing carry-thru structure for inspection in accordance with instructions in Part III of Mooney S/B No. M20-170A dated February 24, 1969, and as follows:

(1) Remove the wing to fuselage fairings and fillets.

(2) Remove all the wing and center section access doors and panels. (Refer to Figure 5 of Mooney Service Bulletin (S/B) No. M20-170A).

(3) Remove the sealing tape at the wing-fuselage joint.

(4) Remove the rear seat and auxiliary fuel tank for access to the wing center section.

(5) Remove flap gap metal seal strips from the top trailing edge of both wings.

(6) Disconnect and remove the wing flaps and ailerons.

(g) Visually, and if necessary using the methods in paragraph (h) of this AD, inspect the wing and wing carry-thru structure and repair any discrepancies found prior to further flight in accordance with instructions in Part III of Mooney S/B No. M20-170A dated February 24, 1969, and as follows:

(1) Inspect the areas around wing to fuselage attach fittings for evidence of deterioration or joint separation.

(2) Inspect the flap and aileron attach bolts, bearings, bushings, and hinge fitting attach bolts and bushings for evidence of rust, corrosion, and wear. See Figure 6 in Mooney S/B No. M20-170A dated February 24, 1969.

(3) Visually inspect the wood end-grain surrounding bolt holes for evidence of rust, discoloration, deterioration, and evidence of moisture accumulation at the trailing edges of the wings.

(4) Visually inspect the rear stub spar for glue bond separations, water stains, and wood rot. If these inspections identify any questionable areas in which possible deterioration may exist in the concealed spar caps, prior to further flight, determine the condition of the internal spruce core in accordance with paragraph (h) of this AD. See Note 1 of this AD.

(5) Visually inspect all accessible areas of the main spar from the fuselage center line (BL 0.0) out to left and right wing Station 59.25 for glue bond separations, water stains, and wood rot. If these inspections identify any questionable areas in which possible deterioration may exist in the concealed spruce spar prior to further flight determine the condition of the internal spruce core in accordance with paragraph (h) of this AD. See Note 1 of this AD.

(6) Visually inspect the accessible interior of the wing using a flashlight and mirror, for wood decay, water and/or wood stains, pooled dust/dirt which may indicate evidence of previous standing water, rust or corrosion on metallic surfaces, wood discoloration, and detectable moisture. See Note 1 of this AD.

(7) Inspect the upper and lower exterior surfaces of the wing, including the wheel well, for the following: See Note 1 of this AD.

(i) Indications that the wood immediately below the fabric is soft or contains excessive moisture (i.e., swollen). Soft wood may be located and/or confirmed by depressing the wing's surface in the vicinity of the area in question with a rounded, blunt instrument and comparing its hardness to that of good wood. Note that any areas being compared must have identical substructure.

(ii) Indications that the fabric/paint is delaminating from the wood surface (bubbles, discoloration, boils, soft spots and other surface flaws).

(iii) Cracks or breaks in the paint which could allow water to enter the wing.

(iv) Any other exterior damage which would allow water to penetrate the fabric/paint barrier and enter the wood.

(8) Visually inspect the rear spar in all areas it is accessible from the fuselage center line out to the left and right wing tips for wood rot, water stains in wood and glue joint separation. Pay special attention to the area around all flap and aileron hinge supports, including the support ribs, lower wing skins, spars and closeout strips at wing stations 22.0 and 147.0 (flap inboard and outboard hinge support ribs).

(9) Inspect all drain holes on the bottom of the wing to ensure they are completely open and free of burrs and/or pieces of fabric.

(10) Visually inspect the fuel scupper areas of the main and auxiliary fuel tank fillers for sealant condition between scupper boxes and wing structure.

(11) Check main and auxiliary fuel tank scupper drains to be sure they are not clogged.

(12) Visually inspect aileron and flap fabric covering under metal gap strips in accordance with Mooney S/B No. M20-29 dated December 4, 1957.

(13) Visually inspect the areas of the upper wing surface trailing edge under flap gap metal seals for fabric or wood deterioration. Be alert for deteriorated wood around screw holes used in holding the metal strip to the wing.

(14) Visually inspect, if necessary repair, and refinish the main landing gear wheel well area in accordance with Mooney S/B No. M20-67 dated February 15, 1960.

(h) If during any inspections specified in paragraphs (e) and (g) of this AD there are visual indications of wood deterioration below the surface, prior to further flight, inspect and test these areas to assure their structural integrity by using one or more of the following:

(1) Test for soft/decayed wood with a sharp probe such as an awl or sharp pocket knife.

(2) Disassemble the structure as necessary to gain access to the area and perform a detailed visual inspection.

(3) Tap the wood area in question with a small rounded blunt instrument approximately the size of a small pocket knife. Compare the sound to similar areas that are not suspect. Assuming similar understructure, an abrupt change in sound to a less or non-resilient sound may indicate decay below the surface.

(i) If significant structural repair of the wing main spar, rear spar or stub spar or any area of the wood empennage is found necessary as a result of the inspections and tests of the preceding paragraphs, prior to initiation of the repair, contact Mooney Aircraft Corporation, Post Office Box 72, Kerrville, Texas 78028; Telephone (512) 896-6000, or the local Mooney Aircraft Repair Center, or FAA Airplane Certification Office, ASW-150, FAA, Southwest Region, Post Office Box 1689, Fort Worth, Texas 76101; Telephone (817) 624-5164, to arrange for engineering review and approval of the repair design.

(j) Within 30 days after accomplishment of the first inspection required by paragraph (a) of this AD, the appropriately rated airframe mechanic who performed the inspection shall fill out and sign the one time reporting form included as Attachment 1 to this AD and mail it to the following address: DOT/FAA, Airplane Certification Branch, ASW-150, Post Office Box 1689, Fort Worth, Texas 76101. (Reporting approved by the Office of Management and Budget (OMB) under OMB No. 2120-0056).

NOTE: This is a one time only reporting requirement.

(k) An equivalent method of compliance with this AD may be used if approved by the Manager, Airplane Certification Branch, ASW-150, FAA, Southwest Region, Post Office Box 1689, Fort Worth, Texas 76101.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Mooney Aircraft Corporation, Post Office Box 72, Kerrville, Texas 78028, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

Note 1: The surface features described in the paragraphs of this AD may be accentuated by illuminating the surface with a light source at a shallow angle. The following technique may be used by an experienced inspector to detect soft and/or decayed wood in the wing spars. Tap the wing directly above and below the spars with a small rounded blunt instrument approximately the size of a small pocket knife. Start at the outboard end and move inboard, listening to the sound generated by the wing.

The sound quality will change slowly. If the change is abrupt or if the sound is not resilient, the wood directly below the surface may be deteriorated due to decay.

Note 2: Shelter - Owners and operators are encouraged to shelter the airplanes, to keep the airplane out of rain storms, and to protect the fabric surface from unnecessary exposure to the deteriorating effects of the sun.

Note 3: Maintenance - Owners and operators are encouraged to be selective in who performs maintenance on their airplane. Only personnel extremely experienced in wood airplane inspection and repair should be contacted.

Note 4: The inspection intervals required by this AD differ from the inspection intervals shown in Mooney Service Bulletin No. M20-170A. The intervals in this AD are the same as AD 76-15-01 which this AD supersedes.

Note 5: Repairs to primary and secondary structure may be accomplished with reference to:

(a) FAA Advisory Circular No. 43-13-1A: Acceptable Methods, Techniques and Practices Aircraft Inspection and Repair, Department of Transportation, Federal Aviation Agency 1972; available through the Government Printing Office.

(b) ANC-18: Design of Wood Aircraft Structures, Chapter 4, Munitions Board Aircraft Committee June 1951.

(c) Mooney Aircraft Corporation Engineering Drawings; the specific drawings required will depend on the affected structural components.

(d) Mooney Service Bulletin No. M20-170A dated February 24, 1969.

Note 6: Design of major repairs to primary wood structure (main and stub spars and ribs receiving loads such as landing gear loads or loads related to attachment of moveable control surfaces to fixed surfaces or attachment of fixed surfaces to the fuselage) should be reviewed and approved by Mooney Aircraft Corporation or an FAA Designated Engineering Representative having appropriate ratings or by FAA Aircraft Certification Division engineers. This is not intended to apply to those situations wherein a deteriorated part is replaced with an entire new part of like design.

This AD supersedes AD 76-15-01, Amendment 39-2673.

This amendment becomes effective October 6, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Garry Sills, Airplane Certification Branch, ASW-150, FAA, Post Office Box 1689, Fort Worth, Texas 76101; Telephone (817) 624-5164.

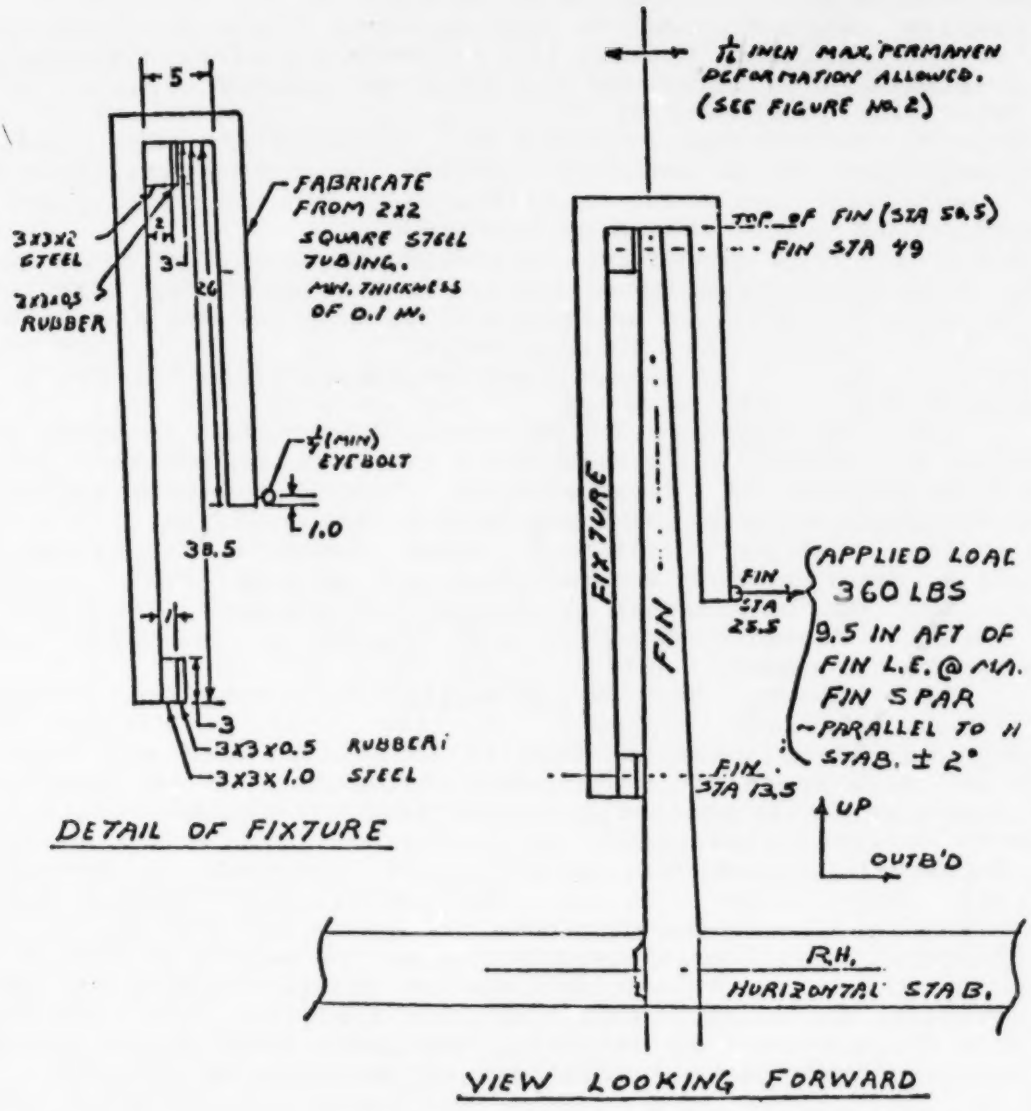


FIGURE NO. 1 - APPLICATION OF FIN SIDE PROOF LOAD ON MAIN SPAR

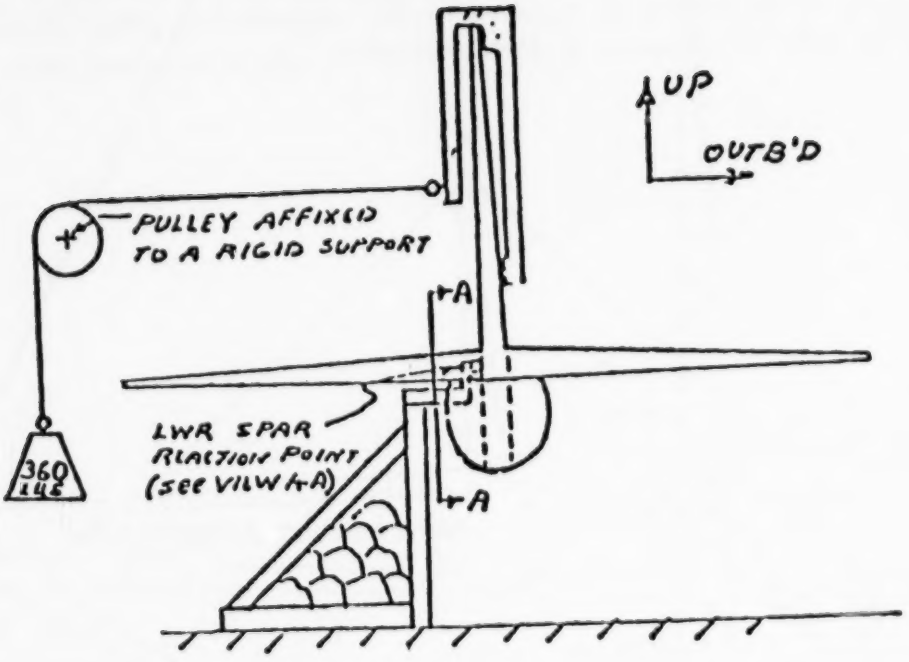
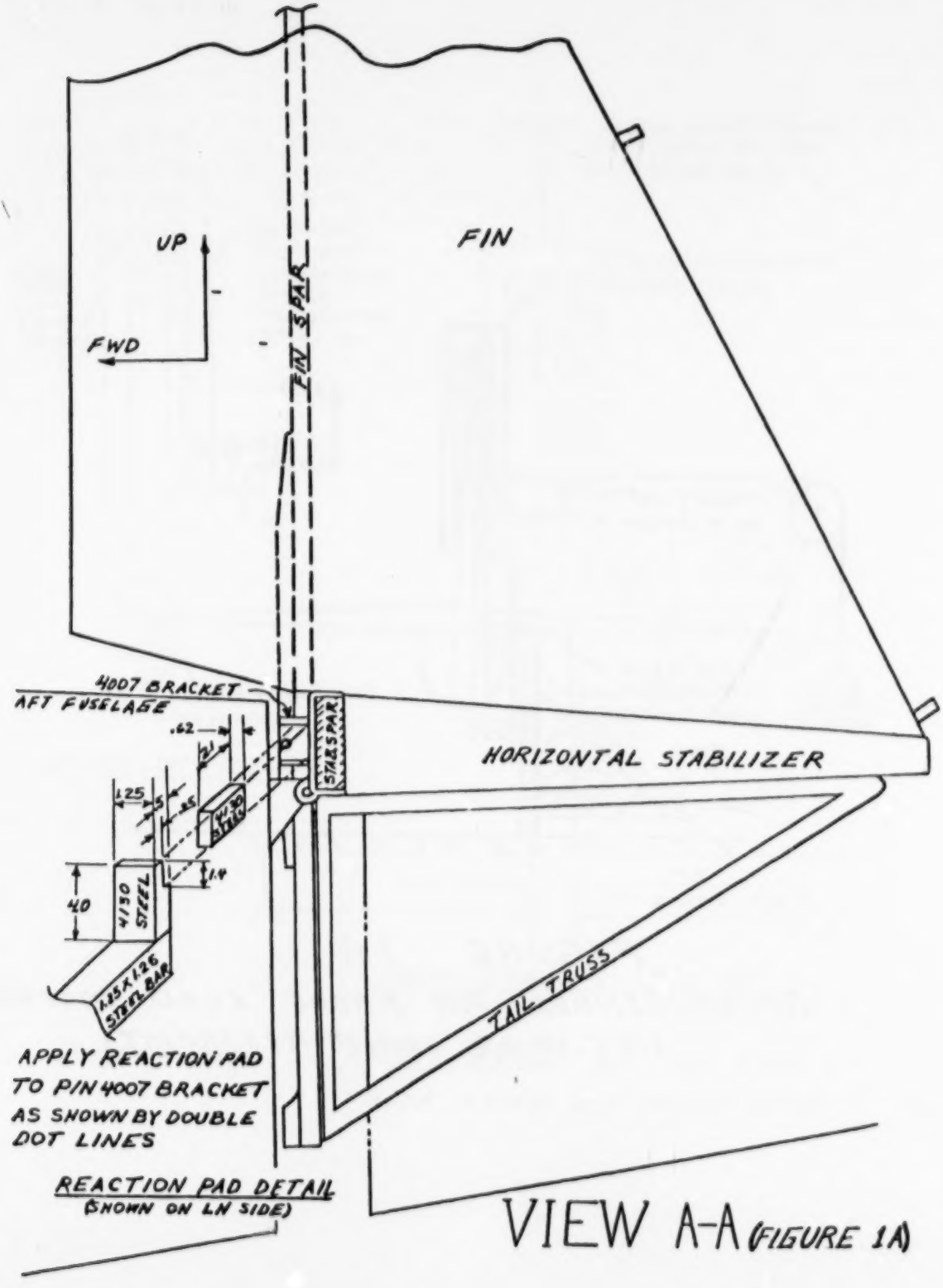


FIGURE 1A

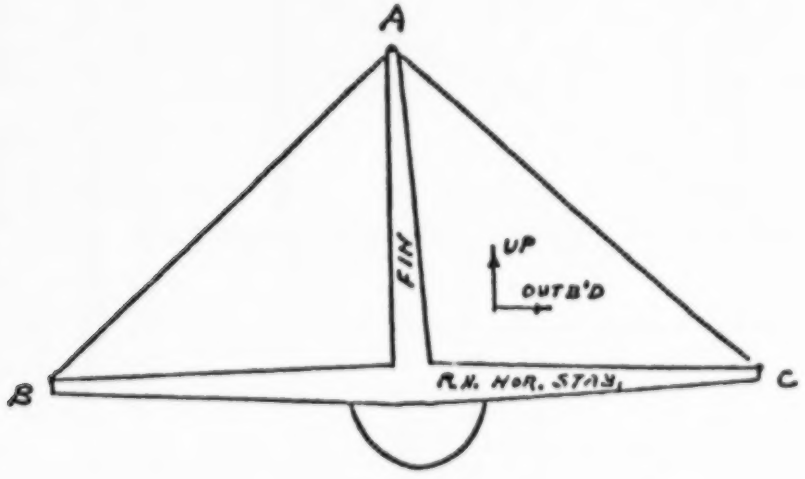
RECOMMENDED FIN PROOF LOAD METHOD (INCLUDING LOWER RESTRAINT)



VIEW A-A (FIGURE 1A)

NOTES:

1. MARK A POINT 'A' ON THE FIN TIP
2. MARK POINTS 'B' AND 'C' ON THE HORIZONTAL STAB. TIPS
3. MEASURE THE DISTANCES 'AB' AND 'AC' BEFORE AND AFTER APPLICATION OF LOADS SHOWN BY FIG. NO. 1
4. IF THE DISTANCE 'AB' MEASURED AFTER LOAD APPLICATION VARIES BY MORE THAN $\frac{1}{16}$ INCH FROM THE DISTANCE 'AB' MEASURED BEFORE LOAD APPLICATION, FAILURE IS CONSIDERED TO HAVE OCCURRED. A VARIATION OF MORE THAN $\frac{1}{16}$ INCH IN THE TWO 'AC' MEASUREMENTS ALSO CONSTITUTES FAILURE



VIEW LOOKING FORWARD

FIGURE NO. 2 - FIN PERMANENT DEFORMATION LIMITS

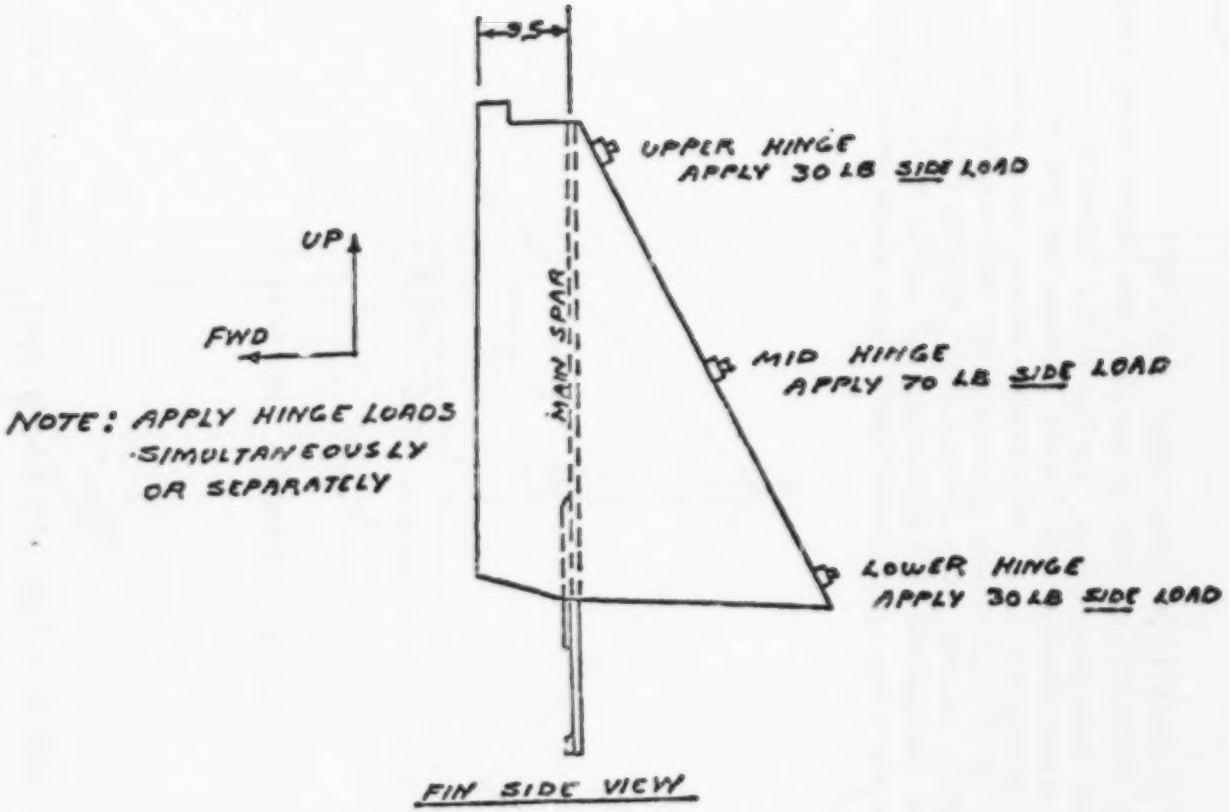
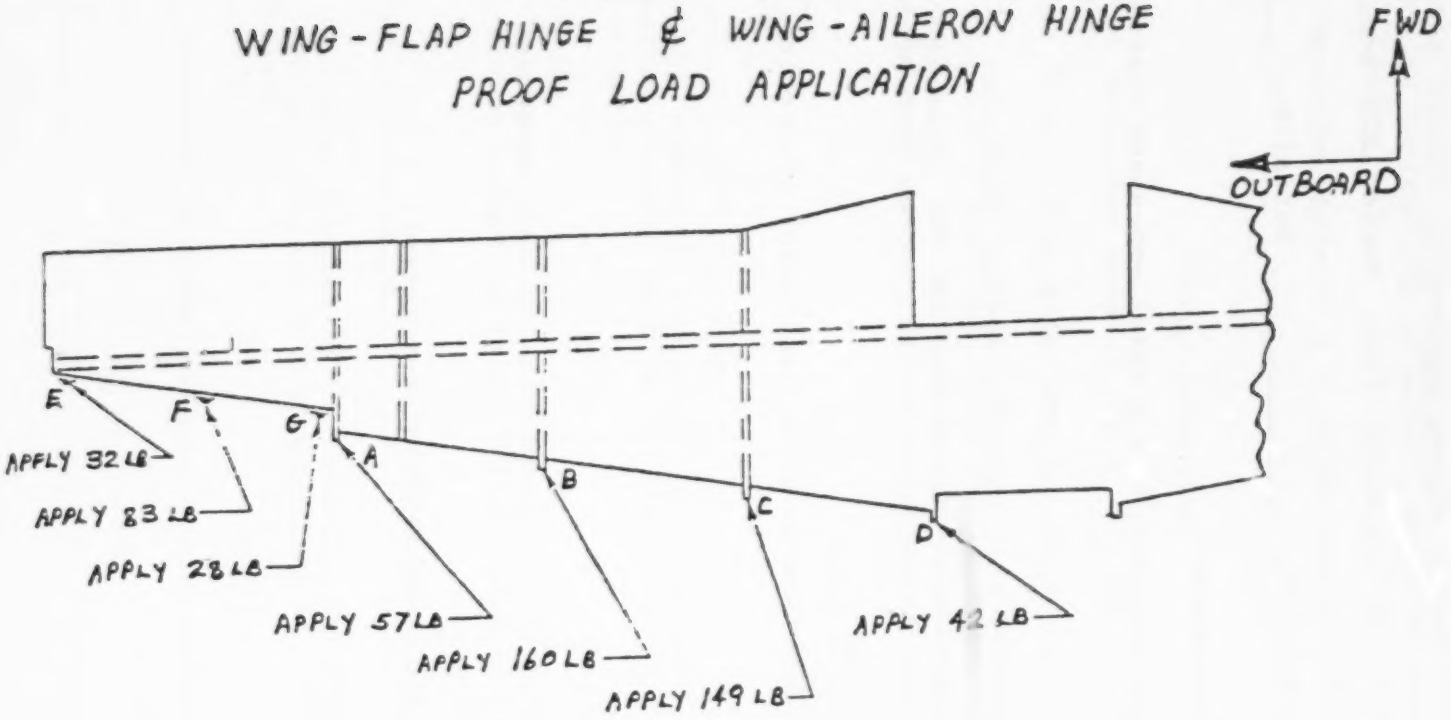


FIGURE NO. 3 - FIN-RUDDER HINGE SIDE PROOF LOAD APPLICATION

FIGURE NO 4

WING - FLAP HINGE & WING - AILERON HINGE

PROOF LOAD APPLICATION



NOTE: 1. APPLY LOADS ONE AT A TIME PERPENDICULAR TO WING
2. HINGES A, B, C, & D -- ARE FLAP HINGES
3. HINGES E, F, & G ARE AILERON HINGES

ATTACHMENT 1

Inspection Results Reporting Form, Mooney M20 and M20A Wood Structure Inspection.

I. Airplane Model No. _____, Serial No. _____.

II. Airplane N-Number _____.

III. Does the airplane have a metal empennage installed:
Yes_____ No _____

If no, go to IV, if yes, skip to V.

IV. For airplanes that have the wooden empennage:

- Did the visual inspection of the empennage result in discovery of any failed glue joints, rotted wood or delaminated wood?
Yes ____ No ____

If yes, describe location and extent of problem.

- Did the visual inspection of the empennage result in discovery of any deteriorated paint or fabric covering?
Yes ____ No ____

If yes, describe location and extent.

- Did the visual inspection of the empennage result in discovery of any indications of water inside the empennage?
Yes ____ No ____

If yes, describe where it got in and where it pooled.

- Did the empennage pass or fail the proof load tests of paragraph (d)?
Yes ____ No ____

- This inspection and testing of the wood empennage on this airplane results in the conclusion that its overall general structural condition is:

Poor ____
Fair ____
Good ____
Excellent ____

- Make any comments you wish to make about adding or deleting inspections and testing of the wood empennage on M20 and M20A airplanes:

V. Wing inspection results.

- Did the visual inspection of the wing and wing carry-thru result in discovery of any failed glue joints, rotted wood or delaminated wood?
Yes ____ No ____

If yes, describe location and extent of problem.

- Did the visual inspection of the wing and wing carry-thru result in discovery of any deteriorated paint, fabric covering plugged drain holes or deteriorated scupper box seal?

Yes ____ No ____

If yes, describe problem, location and extent.

- Did the visual inspection of the wing and wing carry-thru result in discovery of any indications of water inside the wing?

Yes ____ No ____

If yes, describe where it got in and where it pooled.

- This inspection of the wing on this airplane results in the conclusion that its overall general structural condition is:

Poor ____
Fair ____
Good ____
Excellent ____

- Make any comments you wish to make about adding or deleting inspections of the wing on M20 and M20A airplanes:

Mechanics Name: _____

FAA Certificate Number: _____

Date: _____

CESSNA
Airworthiness Directive
VOLUME I

86-19-11 CESSNA: Amendment 39-5407. Applies to Models R172 thru R172K, FR172E thru FR172K, 177 thru 177B and 177RG, F177RG, 185 thru 185E, A185E, A185F, A188, A188A, A188B, T188C, 205 and 205A, 206, U206, U206A thru U206G, TU206A thru TU206G, P206, P206A thru P206E, TP206A thru TP206E, 207 and 207A, T207 and T207A, 210B thru 210R, T210F thru T210R, P210N and P210R (all Serial Numbers (S/N)) airplanes equipped with fuel reservoir(s) certified in any category.

Compliance: Within 100 hours time-in-service or at the next annual inspection, whichever comes first after the effective date of this AD, unless already accomplished.

To eliminate the possibility of engine power reduction due to contaminated fuel, accomplish the following:

(a) On Cessna Models R172, R172E thru R172H, (S/Ns R172-0001 thru R1720625) FR172E thru FR172J (S/Ns FR17200001 thru FR17200530) 177 thru 177A (S/Ns 17700001 thru 17702123) Model 177RG (S/Ns 177RG0001 thru 177RG0592) F177RG (S/Ns F177RG0001 thru F177RG0122) 210G and T210G thru 210L and T210L (S/Ns 21058819 thru 21060539 and T210-0198 thru T2100454) airplanes, install quick drains in the fuel reservoirs and wing fuel tanks if not presently equipped in accordance with Cessna Single Engine Customer Care Service Information Letters SE79-45 dated September 10, 1979, and SE84-8 dated March 16, 1984, or using equivalent aircraft standard hardware.

(b) On all Cessna Models R172, R172E, R172F, R172G, R172H, R172J, R172K,(S/Ns R172-0001 thru R172-0409 and R1720410 and on) FR172E, FR172F, FR172G, FR172H, FR172J, FR172K (S/Ns FR17200001 thru FR17200675) 177, 177A, 177B (S/Ns 17700001 and on), 177RG (S/Ns 177RG0001 and on) F177RG (S/Ns F177RG0001 thru F177RG0177) 185, 185A, 185B, 185C, 185D, 185E, A185E, A185F (S/Ns 632, 185-0001 thru 185-1599, 18501600 and on) A188 (S/Ns 653, 188-0001 thru 188-0572) A188A (S/Ns 18800573 thru 18800832) A188B (S/Ns 678T, 18800833 and on) T188C (S/Ns T18803307T, T18803308T, T18803325T and on) 205, 205A, (S/Ns 205-0001 and on) 206, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, TU206G (S/Ns 206-0001 thru 206-0275, U206-0276 and on) P206, P206A, P206B, P206C, P206D, P206E, TP206A, TP206B, TP206C, TP206D, TP206E, (S/Ns P206-0001 thru P20600647) 207, 207A, T207, T207A (S/Ns 20700001 and on) 210B, 210C, 210D, 210E, 210F, 210G, 210H, 210J, 210K, 210L, 210M, 210N, 210R, T210F, T210G, T210H, T210J, T210K, T210L, T210M, T210N, T210R (S/Ns 21057841 and on) P210N and P210R (S/Ns P21000001 and on) airplanes, attach the information that is included in the appendix to this AD (entitled PILOT OPERATING PROCEDURES - PREFLIGHT FUEL SYSTEM CHECK) to the airplane documents.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Cessna Aircraft Company, Piston Aircraft Marketing Division, Post Office Box 1521, Wichita, Kansas, 67201; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective October 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Paul O. Pendleton, Aerospace Engineer, Aircraft Certification Office, ACE-140W, FAA, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4427.

APPENDIX 86-19-11

PILOT OPERATING PROCEDURES-PREFLIGHT FUEL SYSTEM CHECK

Fuel sampling: Fuel strainer, wing tank and reservoir quick drains.

1. Place a suitable container under the fuel strainer drain outlet prior to operating the strainer drain control for at least 4 seconds. Check strainer drain closed

2. Inspect the fluid drained from the fuel strainer and each wing tank quick drain for evidence of fuel contamination in the form of water, rust, sludge, ice or any other substance not compatible with fuel. Also check for proper fuel grade before the first flight of each day and after each refueling. If any contamination is detected, comply with 4 below.

3. Repeat Steps 1 and 2 on each wing tank quick drain.

4. If the airplane has been exposed to rain, sleet or snow, or if the wing fuel tanks or fuel strainer drains produce water, the fuel reservoir(s) must be checked for the presence of water by operating the fuel reservoir quick drains. The airplane fuel system must be purged to the extent necessary to insure that there is no water, ice or other fuel contamination.

NOTE 1: The fuel reservoir(s) are located under the fuselage between the firewall and forward door post on all airplane models. Consult the Pilots Operating Handbook or Owners Manual in order to determine if one or two reservoir(s) are installed.

NOTE 2: A check for the presence of water using the fuel reservoir quick drains prior to the first flight of each day is considered good operating practice.

86-19-12 ALLISON GAS TURBINE DIVISION, GENERAL MOTORS CORP. (Allison, formerly Detroit Diesel Allison): Amendment 39-5373. Applies to Model 250-C30 Series engines installed in, but not limited to, Sikorsky Model S-76A, Bell Models 206L-1, modified to incorporate the Allison 250-C30 engine, and 206L-3, and McDonnell Douglas Helicopter Company (Hughes) Models 369F and 369FF aircraft.

SIKORSKY AIRCRAFT: Applies to Sikorsky Aircraft Model S-76A helicopters certificated in any category and equipped with Allison Model 250-C30 and -C30S engines.

Compliance is required as indicated unless already accomplished.

To prevent conditions that can lead to a possible gas producer turbine rotor uncontained failure and to prevent critical secondary damage in the event of a gas producer turbine rotor uncontained failure, accomplish the following:

NOTE: Paragraphs (a) (1) thru (a)(3) of this AD are equivalent to the technical requirements of AD 84-24-02 which is superseded by this AD. Paragraphs (a)(4) and (b) delineate final corrective actions for all Model 250-C30 Series engines to prevent the above described failure/secondary damage.

(a) Allison Model 250-C30 and -C30S engines installed in Sikorsky Aircraft Model S-76A helicopters

(1) Within the next 30 days after December 18, 1984, for aircraft in compliance with telegraphic AD (TAD) T84-16-51, and prior to further flight for aircraft not in compliance with TAD T84-16-51, perform the following:

(i) Install the Sikorsky Model S-76A helicopter engine compartment protective shields, P/N 76070-20077-013 or P/N 76070-20077-014, in accordance with Sikorsky Alert Service Bulletin (ASB) 76-71-7 dated November 9, 1984, or FAA-approved equivalent; and concurrently,

(ii) Install Allison first stage turbine wheel external energy absorbing rings, P/N 23031910, L.H. and 23031920, R.H., around the Allison Model 250-C30 and -C30S engines in accordance with Allison Commercial Engine Alert Bulletin CEB-A-72-3124 initial issue dated November 15, 1984, or Revision 1 dated December 16, 1985, and prerequisite CEB-A-72-3125 dated November 15, 1984, and Sikorsky ASB 76-71-7 dated November 9, 1984, or FAA-approved equivalents; or, install an Allison first stage turbine wheel internal energy absorbing ring P/N 23031909, or P/N 23032263, or FAA-approved equivalent, in accordance with Allison Commercial Engine Alert Bulletin CEB-A-72-3128 initial issue dated November 15, 1984, or Revision 1 dated September 30, 1985, and Sikorsky ASB 76-71-7 dated November 9, 1984, or FAA-approved equivalents.

NOTE: The engine manufacturer in Revision 1 dated December 16, 1985, to Allison CEB-A-72-3124 added an inspection of the first stage turbine wheel external energy absorbing ring turbine mount link P/N 23031441 for misalignment and mounting bracket P/N 23031446 for cracks at intervals of 25 hours time-in-service. While the FAA concurs with the desirability of this inspection, it is not made mandatory by this AD.

(2) Within the next 25 hours time-in-service after the compliance with (a), above, and thereafter at intervals not to exceed 25 hours time-in-service, inspect the Sikorsky Model S-76A helicopter engine compartment protective shields in accordance with Chapter 5 of Sikorsky Airworthiness and Inspection Requirements Manual, Publication No. SA 4047-76-2-1 dated November 12, 1984, or FAA-approved equivalent.

(3) At the next engine repair/overhaul shop visit after December 18, 1984, but not later than November 30, 1986, update the engines to the "Allison Assured Engine" configuration and continue to maintain in accordance with Allison Commercial Service Letter, CSL-3068 initial issue dated October 1, 1984, or CSL-3068, Revision 1, dated September 30, 1985, or FAA-approved equivalent with the following exception to the November 30, 1986, compliance deadline:

At the next engine repair/overhaul shop visit after December 18, 1984, but not later than March 30, 1986, inspect and modify the 29-34 labyrinth seal for engines with more than 100 hours time-in-service since turbine overhaul or repair, in accordance with Allison CEB-A-72-3127, Revision 2, dated April 3, 1985, or prior issues and CEB-A-72-3131, Revision 1, dated April 22, 1985, or initial issue, respectively, or FAA-approved equivalents.

NOTE: The date November 30, 1986, that appears in paragraph 4B and 8 of Allison Commercial Service Letter CSL-3068, Revision 1, dated September 30, 1985, should read March 30, 1986.

(4) At the next turbine repair/overhaul shop visit after the effective date of this AD, but not later than November 30, 1986, perform the following:

(i) Install first stage turbine wheel internal energy absorbing ring P/N 23031909, or P/N 23032263, or FAA-approved equivalent, in accordance with Allison CEB-A-72-3128, Revision 1, dated September 30, 1985, or initial issue, or FAA-approved equivalent.

(ii) Replace existing second stage turbine wheel P/N 6892762, or P/N 689822, or P/N 23004233 with P/N 23032280, or FAA-approved equivalent, in accordance with Allison CEB-A-72-3132, dated February 1, 1985, or FAA-approved equivalent.

(iii) Remove engine external energy absorbing ring P/N 23001910, L.H. or P/N 23001920, R.H., as appropriate, in accordance with Allison CEB-72-3136 dated July 31, 1985, or FAA-approved equivalent.

(iv) The Sikorsky Model S-76A helicopter engine compartment protective shields, P/N 76070-20077-013 or P/N 76070-20077-014, may be removed in accordance with Sikorsky Customer Service Notice No. 76-158 dated January 14, 1985,

after compliance with Paragraphs (a)(4)(i), (ii), and (iii) above.

NOTE: The engine containment configurations 1 thru 4, and authorized configuration mixes listed in Appendix 1 of Sikorsky Customer Service Notice No. 76-158 dated January 14, 1985, continue to be FAA-approved until November 30, 1986; after this date only configurations 3 and 4 are authorized per Paragraphs (a)(1)(i) and (a)(4) of this AD for Allison Model 250-C30 and -C30S/Sikorsky Model S-76A installations.

(b) Allison Model 250-C30, -C30L, -C30M, -C30P, and -C30S engines installed in aircraft other than Sikorsky Aircraft Model S-76A helicopters

At the next turbine repair/overhaul shop visit after the effective date of this AD, but not later than November 30, 1987, perform the following:

(1) Install first stage turbine wheel internal energy absorbing ring P/N 23031909, or P/N 23032263, or FAA-approved equivalent, in accordance with Allison CEB-A-72-3128, Revision 1, dated September 30, 1985, or initial issue, or FAA-approved equivalent.

(2) Replace existing second stage turbine wheel P/N 6892762, or P/N 6898922, or P/N 23004233 with P/N 23032280, or FAA-approved equivalent, in accordance with Allison CEB-A-72-3137, Revision 1, dated May 3, 1985, or initial issue, or FAA-approved equivalent.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Chicago Aircraft Certification Office, may adjust the compliance time specified in this AD.

The manufacturers' specifications and procedures, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1):

Sikorsky Alert Service Bulletin 76-71-7 dated November 9, 1984
Sikorsky Airworthiness and Inspection Requirements Manual, Publication No. SA 4047-76-2-1 dated November 12, 1984
Sikorsky Customer Service Notice 76-158 dated January14, 1985
Allison CSL-3068, Rev. 1, dated September 15, 1985
Allison CSL-A-3062, Rev. 1, dated January 15, 1985
Allison CSL-A-3066, Rev. 1, dated January 15, 1985
Allison CEB-A-72-3124, Rev. 1, dated December 16, 1985
Allison CEB-A-72-3125 dated November 15, 1984
Allison CEB-A-72-3127, Rev. 2, dated April 3, 1985
Allison CEB-A-72-3128, Rev. 1, dated September 30, 1985
Allison CEB-A-72-3131, Rev. 1, dated April 22, 1985
Allison CEB-A-72-3132 dated February 1, 1985
Allison CEB-A-72-3136 dated July 31, 1985
Allison CEB-A-72-3137, Rev. 1, dated May 3, 1985

All persons affected by this directive who have not already received these documents from the manufacturers may obtain

copies upon request to Allison Gas Turbine Division, General Motors Corp., P.O. Box 420, Indianapolis, Indiana 46206-0420; and Sikorsky Aircraft, Division of United Technologies Corp., North Main Street, Stratford, Connecticut 06601. These documents also may be examined at the Office of Regional Counsel, FAA, ATTN: Rules Docket No. 84-ANE-21, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment supersedes AD 84-24-02, Amendment 39-4957, 49 FR 48531, effective December 18, 1984.

This amendment becomes effective on October 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Royace H. Prather, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone 312-694-7132

AVCO LYCOMING
Airworthiness Directive
VOLUME I

86-19-13 AVCO LYCOMING: Amendment 39-5374. Applies to Avco Lycoming model T5508D turboshaft engines.

Compliance is required as indicated, unless already accomplished.

To prevent failure of the first stage turbine disk that can cause an uncontained engine failure, accomplish the following:

(a) Visual and fluorescent penetrant inspect the first turbine rotor assembly, Part Number (P/N) 2-120-030-43, within the next 50 hours time in service after the effective date of this AD, in accordance with the Accomplishment Instructions contained in Avco Lycoming Service Bulletin (SB) 5508-0031, Revision 1, dated August 19, 1986, or FAA approved equivalent.

(b) Remove and replace with new parts, bolts P/N 2-100-079-05 and their associated locking plates P/N 2-100-078-01, when accomplishing the inspections of Paragraph (a) above, in accordance with the Accomplishment Instructions contained in Avco Lycoming SB 5508-0031, Revision 1, dated August 19, 1986, or FAA approved equivalent.

(c) Remove from service and replace with a serviceable part, prior to further flight, all first turbine disks that exhibit fretting on the disk to shaft mating face and/or a crack indication during inspection.

(d) Report the following information in writing for each inspection within 30 days of the inspection to the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, (Telex Number 949301 FAANE BURL) (Reporting approved by the Office of Management and Budget (OMB) under OBM Number 2120-0056):

(1) Engine serial number
(2) Inspection date
(3) Disk part number and serial number
(4) Disk total time and cycles
(5) Disk time and cycles since last installation
(6) Breakaway up torque for bolts, P/N 2-100-079-05
(7) Any evidence of oil leakage and/or fire in the Number 2 bearing area
(8) Disk disposition (crack indication or, no crack indication, fretting or, no fretting, thread marks inside the boltholes or not)

NOTE: For the purpose of this AD fretting is defined as metal removal below the original machined surface that is exemplified by a pitting pattern.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, may adjust the compliance times specified in this AD.

Avco Lycoming SB 5508-0031, Revision 1, dated August 19, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Avco Lycoming, 550 South Main Street, Stratford, Connecticut 06497. This document also may be examined at the Office of the Regional Counsel, Rules Docket Number 86-ANE-31, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 86-ANE-31, Room 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective on October 6, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

SIKORSKY
Airworthiness Directive
VOLUME I

86-19-14 SIKORSKY AIRCRAFT: Letter issued September 23, 1986. Applies to all Model S-76A and S-76B helicopters, certificated in any category, equipped with tail rotor blade assemblies as follows:

MODEL	PART NUMBERS	SERIAL NUMBERS
S-76A	76101-05001 or 76101-05101	A137-00766, -00774, -00775, -00779, -00781, -00783, and -00785
S-76B	76101-05501	A245-00025, -00026, -00027, -00028, -00037, -00040, -00041, and -00047

Compliance is required as indicated, unless already accomplished.

To prevent possible operation with an improperly manufactured tail rotor assembly, accomplish the following:

(a) Prior to further flight after receipt of this AD, remove the above listed serial numbered tail rotor assemblies/spars, and replace with a serviceable part. The above listed serial numbered tail rotor assemblies/spars marked with the suffix (X) are serviceable parts.

(b) Aircraft may be ferried in accordance with the provisions of FAR Sections 21.197 and 21.199 to a base where the requirements of this AD may be accomplished.

(c) Upon request, an alternate means of compliance which provides an equivalent level of safety with the requirements of this AD may be approved by the Manager, Boston Aircraft Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7118.

(d) Upon submission of substantiating data by an owner or operator, through an FAA maintenance inspector, the Manager, Boston Aircraft Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7118, may adjust the compliance time specified in this AD.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Cheryl McCabe, Airframe Branch, ANE-152, Boston Aircraft Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7112.

86-19-15 SOCIETE NATIONALE INDUSTRIELLE AEROSPATIALE (SNIAS): Letter issued September 24, 1986. Applies to Aerospatiale Model AS 355 series helicopters, certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent the failure of main rotor "starflex" sleeves, accomplish the following:

(a) Within the next 100 hours time in service after receipt of this AD, replace main rotor "starflex" sleeves (Part Nos. 350A31.1831.05 and .04 and 350A31.1831.06 and .07) which have 1,400 or more hours time in service with serviceable parts.

(b) Replace main rotor "starflex" sleeves with serviceable parts before 1,500 hours time in service for those sleeves having less than 1,400 hours time in service when this AD is received.

(c) In the event of sudden or repeated occurrence of a severe tracking defect, accomplish the following before the next flight:

(1) Remove blades and visually check to determine if outboard sleeve bushes are separated; and

(2) Remove and replace sleeves if bush separation is found.

(d) An alternate method of compliance with this AD, which provides an equivalent level of safety, may be used when approved by the Manager, Aircraft Certification Division, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, or by the Manager, Aircraft Certification Office, AEU-100, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium.

(e) In accordance with FAR Sections 21.197 and 21.199, flight is permitted to a base where the maintenance required by this AD may be accomplished.

NOTE: Aerospatiale Telex Service 01.13 and French AD 86-35-28(B) pertain to this subject.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

R. T. Weaver, Regulations Program Management, ASW-111, Rotorcraft Standards Staff, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101; telephone (817) 624-5122.

BRITISH AEROSPACE
Airworthiness Directive
Revision
VOLUME I

86-16-04 R1 BRITISH AEROSPACE: Amendment 39-5383 as amended by 39-5416. Applies to Jetstream Model 3101 (all serial numbers) airplanes which have incorporated Arkansas Modification Center, Inc. (AMC) baggage pod Modification STC No. SA5900SW using baggage pod Serial Numbers 003 through 026, 028, 034, 035, 037, and 038.

Compliance: Required within the next 50 landings after the effective date of this AD, unless already accomplished.

NOTE: If landings are not recorded, one hour time-in-service (TIS) equals two landings.

To prevent possible scoring and failure of the two flap torque tubes, and subsequent loss of control of the aircraft, accomplish the following:

(a) Inspect the flap torque shaft in accordance with BAe Alert Service Bulletin (ASB) No. 27-JA850949 dated January 8, 1986, Section 2 B, "Inspection/Repair", Subparagraph (1)

(1) If scored in excess of 0.030 inches in depth, before further flight replace torque shaft with a serviceable shaft.

(2) If scoring does not exceed 0.030 inches in depth:

(i) Before further flight repair in accordance with BAe ASB No. 27-JA850949 dated January 8, 1986, Section 2B, "Inspection/Repair", Subparagraph (3), and

(ii) Inspect for cracks using a dye penetrant inspection to establish integrity of the shaft. If cracks are found, before further flight, replace torque shaft with a serviceable shaft.

(b) Rework panels F21 and F22 in accordance with Arkansas Modification Center, Inc. (AMC) Mandatory Service Bulletin (MSB) No. 25-0001(-1) dated May 13, 1986, Section 2A, "ACCOMPLISHMENT INSTRUCTIONS".

(c) Airplanes may be flown with the flap system rendered inoperative in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, FAA, Southwest Region, Special Programs Branch, ASW-190, 4400 Blue Mound Road, Post Office Box 1689, Fort Worth, Texas 76101.

All persons affected by this AD may obtain copies of Arkansas Modification Center, Inc., (AMC) Mandatory Service Bulletin (MSB) No. 25-0001(-1) dated May 13, 1986, referred to herein upon request to the Arkansas Modification Center, Inc., Post Office Box 3356, Adams Field, Little Rock, Arkansas 72203, and Alert Service Bulletin No. 27-JA85-0949 dated January 8, 1986, referred to herein upon request to the British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041 or

FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

Amendment 39-5383 became effective on August 13, 1986.

This amendment, 39-5416, becomes effective September 20, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. William Simmons, FAA, ASW-190, 4400 Blue Mound Road, Fort Worth, Texas 76101; Telephone (817) 624-5199 or Mr. John P. Dow, Sr., FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

HARTZELL
Airworthiness Directive
Revision
VOLUME I

85-14-10 R2 HARTZELL PROPELLER PRODUCTS DIVISION: Amendment 39-5098, as amended by 39-5334, is further amended by Amendment 39-5414. Applies to all Hartzell Model ( )HC- ( )( )(X,V) series propellers with Hartzell Part Number C-3-( ) blade clamp assemblies.

Compliance required within the next 60 days after the effective date of Amendment 39-5414, unless already accomplished.

To prevent propeller blade clamp failure, accomplish the following:

(a) Replace all propeller blade clamp assemblies which have serial numbers ranging from 0 through D5293 with airworthy clamp assemblies, or inspect as follows:

(1) Visually inspect the internal, inboard radius area of the clamp, especially next to the clamp bolt hole, for corrosion. Remove from service all clamps showing signs of corrosion (rework is not permitted) and replace with airworthy clamp assemblies.

(2) Magnetic particle inspect all internal and external surfaces of the clamp for evidence of cracks in accordance with Hartzell Specification No. H-S-7 dated August 4, 1981, or FAA approved equivalent. Replace all cracked clamps with airworthy clamp assemblies.

(3) Penetrant inspect all external surfaces of the blade clamp assemblies within 100 hours since inspection in Paragraphs (a)(1) and (2) above and at intervals not to exceed 100 hours since last inspection. Replace all clamps showing signs of cracks with airworthy clamp assemblies.

(b) Replace all propeller blade clamp assemblies which have mismatching serial numbers on each clamp half or which have unreadable serial numbers with airworthy clamp assemblies.

(c) Accomplish the following on all blade clamp assemblies which have serial numbers ranging from D5294 through K6336 in accordance with Hartzell Service Instruction No. 159B dated May 23, 1986, or FAA approved equivalent:

(1) Using a 10x power magnifying glass, visually inspect the inner bearing race radius, especially next to the inner clamp bolt hole, for defects in the form of corrosion, tool marks, gouges, scratches, etc.

(2) Remove all evidence of defects in the clamp inner bearing race radius. Replace all reworked clamps that exceed the rework limitations defined in the Service Instruction with airworthy clamp assemblies or return to Hartzell for further evaluation.

(3) Magnetic particle inspect the clamp for evidence of cracks. Replace all cracked clamps with airworthy clamp assemblies.

(4) Replate all reworked clamps.

NOTE: Compliance with Amendment 39-5098 constitutes compliance with this AD.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, Central Region.

Hartzell Service Instruction No. 159B dated May 23, 1986, and Hartzell Specification No. H-S-7 dated August 4, 1981, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Hartzell Propeller Products Division, TRW Aircraft Components Group, 350 Washington Avenue, Piqua, Ohio 45356. These documents also may be examined at the Office of Regional Counsel, FAA, Attn: Rules Docket No. 84-ANE-24, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective on September 25, 1986.

This amendment amends Amendment 39-5098, (50 FR 30417), AD 85-14-10, as amended by Amendment 39-5334, (51 FR 23732), AD 85-14-10 R1.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert Alpiser, Chicago Aircraft Certification Office, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018, telephone (312) 694-7130.

SPERRY FLIGHT SYSTEMS
Airworthiness Directive
Revision
VOLUME I

85-07-03 R1 SPERRY FLIGHT SYSTEMS, AVIONICS DIVISION: Amendment 39-5026 as amended by Amendment 39-5411. Applies to Sperry Model SPZ-7000 with FZ-700 computer Part No. 7003183-901 or 7003183-902 installed. The SPZ-7000 installation is known to exist on, but may not be limited to, Sikorsky Model S-76A helicopters modified in accordance with Supplementary Type Certificate (STC) No. SH2218NM, and S.N.I.A.S. Model AS-365N helicopters modified in accordance with STC No. SH2215NM.

Compliance is required within ten (10) days after the effective date of this AD, unless previously accomplished.

To prevent improper (dangerous) excursions from the glide slope during instrument landing system (ILS) approach, accomplish the following:

A. Install a placard adjacent to the autopilot/flight director mode selector in full view of pilot, stating "DO NOT ENGAGE ILS MODE ABOVE 2000 FEET AGL DURING ILS APPROACH."

B. Installation of FZ-700 computers, Part Number (P/N) 7003138-902 with modification "E" incorporated, on Sikorsky S-76A helicopters; or P/N 7003138-901 with modification "F" incorporated, on S.N.I.A.S. Model AS-365N helicopters; constitutes terminating action for the requirement of paragraph A. of this AD.

C. Alternate modifications or other actions which provide an acceptable level of safety may be used when approved by the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Sperry Corporation, Aerospace and Marine Group, P.O. Box 29000, Phoenix, Arizona 85038. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at the Western Aircraft Certification Office, 15000 Aviation Boulevard, Hawthorne, California.

Amendment 39-5206 became effective April 15, 1985.

This amendment, 39-5411, becomes effective September 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Richard Thompson, Aerospace Engineer, Systems & Equipment Section, ANM-173W, FAA, Northwest Mountain Region, Western Aircraft Certification Office; telephone (213) 297-1375. Mailing Address: FAA, Northwest Mountain Region, Western Aircraft Certification Office, ANM-173W, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007.

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86-20-01 MITSUBISHI: Amendment 39-5428. Applies to Models MU-2B, -10, -15, -20, -25, -26, -26A, -30, -35, -36, -36A, -40, and -60 (Serial Numbers 1 through 753 inclusive, with or without the SA suffix) airplanes certificated in any category.

NOTE: The serial numbers of airplanes manufactured in the United States by MAI under Type Certificate A10SW are suffixed by "SA". The serial numbers of airplanes manufactured in Japan by MHI under Type Certificate A2PC have no suffix.

Compliance required as indicated unless already accomplished.

To assure anti-ice capability of pitot system and proper electric load distribution of anti-ice/deice circuits, accomplish the following:

(a) Before next flight after the effective date of this AD:

(1) Modify the following in accordance with Mitsubishi Heavy Industries (MHI) Ltd., Service Recommendation (SR) 053, Revision A, dated October 23, 1984, or Mitsubishi Aircraft International, (MAI) Inc. SR 020/34-005, Revision B, dated May 24, 1985, as applicable:

(i) the electrical circuitry of the pitot tube and anti-ice/deice systems and,

(ii) The pitot tube system by installing higher heat capacity pitot tube, P/N PH1100.

(2) As an alternate means of compliance:

(i) Before further flight:

(A) Fabricate and install a temporary placard(s) in full view of the pilot, using letters of minimum 0.10 inch in height which state:

(I) "FLIGHT IN KNOWN ICING CONDITIONS IS PROHIBITED".

(II) "TURN PITOT HEAT ON DURING FLIGHT IN VISIBLE MOISTURE".

(III) "Pilot and copilot airspeed indicators may display erroneous data after: (a) Flight in visible moisture; (b) Outside storage in rain without pitot covers; or (c) Washing of airplane. Refer to AFM for corrective action", and

(B) On the "TYPES OF OPERATION" placard located in the cockpit delete, using opaque tape, the words "ICING CONDITIONS", and

(C) Add the following information to the "LIMITATIONS" section of the FAA Approved Airplane Flight Manual (AFM) which supersedes any other AFM information which may be contradictory:

(I) "Flight in known icing conditions is PROHIBITED", and

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(II) "TURN PITOT HEAD HEATER ON DURING FLIGHT IN VISIBLE MOISTURE", and

(III) "The pilot and copilot airspeed indicator may display erroneous data after any:

(a) Flight in visible moisture, or

(b) Period of outside storage in rain with no pitot covers installed, or

(c) Washing of airplane with no pitot covers installed.

If erroneous airspeed indication(s) has (have) been observed, corrective action is required prior to next flight by draining the affected pitot line(s) and performing the 'OPERATIONAL CHECK OF PITOT LINE' in accordance with the applicable Mitsubishi MU-2 maintenance manual."

(ii) Within the next 100 hours time-in-service after the effective date of this AD, modify the electrical circuitry of the pitot tube and anti-ice/deice systems in accordance with the applicable service information as follows:

A. Mitsubishi Heavy Industries (MHI) Ltd., Service Recommendation (SR) 053, Revision A, dated October 23, 1984, or

B. Mitsubishi Aircraft International (MAI), Inc. SR 020/34-005, Revision B, dated May 24, 1985.

(iii) Replacement of the existing pitot tube(s) with the high heat producing pitot tube(s) in accordance with paragraph (a)(1)(ii) of this AD may be delayed until September 1, 1988, if compliance with paragraph (a)(2)(i) of this AD is accomplished prior to further flight.

(b) Insertion of a copy of this AD in the "LIMITATIONS" section of the AFM satisfies the requirements of paragraph (a)(2)(i)(C) of this AD.

(c) The requirements of paragraphs (a)(2)(i)(A), (a)(2)(i)(B) and (b) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) Remove the temporary placard(s) and AFM textual addition required by paragraph (a)(2)(i) of this AD when the requirements of paragraph (a)(1) of this AD are accomplished.

(e) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(f) An equivalent method of compliance with this AD may be used on the MHI airplanes, if approved by the Manager, Western Aircraft Certification Office, ANM-170W, Federal Aviation Administration, P.O. Box 92007, Worldway Postal Center, Los Angeles, California, 90009-2007, and on the MAI airplanes, if approved by the Manager, Wichita Aircraft Certification Office, ACE-115W, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Beech Aircraft Corporation (Licensee for Mitsubishi), 9709 East Central, P.O. Box 85, Wichita, Kansas 67201, or FAA, Office of the Regional

Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment supersedes Amendment 39-5006 (50 FR 8321) as amended by Amendment 39-5328 (51 FR 21515), AD 85-04-03R1.

This amendment becomes effective October 6, 1986.

FOR FURTHER INFORMATION CONTACT:

For MHI TC A2PC Series airplanes manufactured in Japan: Jerry Sullivan, Aerospace Engineer, Western Aircraft Certification Office, ANM-172W, Federal Aviation Administration, P.O. Box 92007, Worldway Postal Center, Los Angeles, California, 90009-2007; telephone (213) 297-1166. For MAI TC A10SW Series airplanes manufactured in the U.S.: Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209; Telephone (316) 946-4419.

86-20-03 BEECH AIRCRAFT CORPORATION: Amendment 39-5413. Applies to the following Beech Airplanes certificated in any category:

MODEL	SERIAL NUMBERS S/N	REFERENCE SERVICE INSTRUCTION NO.
65-90, 65-A90, B90, C90, C90A;	LJ-1 thru LJ-1110;	Beechcraft Mandatory Service Instruction No. 2028, Rev. II, dated November 1985
E90;	LW-1 thru LW-347;	
F90;	LA-2 thru LA-236;	
200, B200;	BB-2 thru BB-1217;	
200C, B200C;	BL-1 thru BL-112 and BL-124	
200CT, B200CT;	BN-1 thru BN-4;	
200T, B200T	BT-1 thru BT-30;	
300	FA-1 thru FA-38 and FA-40 thru FA-50	
1900	UA-1 thru UA-3	
1900C Airliner	UB-1 thru UB-44	
H90 (T-44A)	LL-1 thru LL-18, LL-20 thru LL-31, LL-33 thru LL-40, LL-42 thru LL-48, and LL-50 thru LL-61	Beech T-44A Service Instructions No. T-44A-0058
A200 (C-12A)	BD-1 thru BD-30;	Beech C-12 Service Instructions No. C-12-0103
A200 (C-12C)	BC-1 thru BC-75;	
A200CT (C-12D)	BP-1, BP-22, BP-24 thru BP-39; BP-40 and BP-45;	
A200CT (RC-12D)	GR-1 thru GR-13;	
A200CT (RC-12G)	FC-1 thru FC-3;	
A200CT (FWC-12D)	BP-7 thru BP-11;	
A200C (UC-12B)	BJ-1 thru BJ-66	
65-A90-1 (U-21A)	LM-1 thru LM-63, LM-65, LM-67 thru LM-69, LM-71 thru LM-107, and LM-112 thru LM-124;	Beech U-21 Service Instruction No. U-21-0002
65-A90-1 (JU-21A)	LM-64, LM-66, LM-70;	
65-A90-1 (U-21G)	LM-125 thru LM-141;	
65-A90-1 (RU-21A)	LM-108 thru LM-111;	

65-A90-2 (RU-21B) LS-1 thru LS-3;
65-A90-3 (RU-21C) LT-1 and LT-2;
65-A90-4 (RU-21H) LU-1 thru LU-16

Compliance: Required as indicated after the effective date of this AD, unless previously accomplished.

To preclude improper operation of the elevator trim system, accomplish the following:

(a) Within the next 25 hours time-in-service, perform the following:

(1) Check the operation of the elevator trim system and mark the elevator trim indicator scale in accordance with Part I or Part II of Beech Service Bulletin No. 2028, Rev. II, dated November 1985.

(2) For the Models 65-90, 65-90A, B90, C90, C90A, and E90 airplanes, mark the elevator trim tab push rods in accordance with Part I or Part II of Beech Service Bulletin No. 2028, Rev. II, dated November 1985.

NOTE: The following airplanes have been previously marked by the manufacturer per paragraphs (a)(1) and (a)(2) of this AD:

Models C90A (S/N LJ-1077 thru LJ-1110), F90 (S/N LA-223 thru LA-236), B200 (S/N BB-1193 thru BB-1217), B200C (S/N BL-72 thru BL-112 and BL-124), 300 (S/N FA-1, FA-38 and FA-40 thru FA-50), and 1900 (S/N UB-9 thru UB-44).

(3) Place the Elevator Trim System Preflight Check Procedure, shown in Attachment 1 to this AD, in the Limitations Section of the FAA Approved Airplane Flight Manual for the Models 65-90, 65-A90, B90, C90, E90, and 200T/200CT airplanes; and the Limitations Section of the Pilot's Operating Handbook and the FAA Approved Airplane Flight Manual for the Models C90, C90A, F90, 200/200C, B200T, B200CT, 300, and 1900/1900C airplanes.

(b) Prior to March 1, 1987, modify the elevator trim system in accordance with the instructions contained in Beechcraft Service Bulletin No. 2028, Rev. II, Part III, dated November 1985.

(c) The requirements of paragraph (a) of this AD are not required after the modification required by paragraph (b) of this AD is accomplished.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where the AD may be accomplished.

(e) An equivalent means of compliance with this AD may be used, if approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Beech Aircraft Corporation, 9709 East Central, P.O. Box 85, Wichita, Kansas 67201; or the FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on October 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Dale A. Vassalli, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4419.

ATTACHMENT 1

OPERATING LIMITATION:

The Elevator Trim System Preflight Check procedure, as defined below, must be conducted prior to each flight.

To verify that the elevator trim cable is not fouled or disengaged from the cable drum the following Elevator Trim System Preflight Check is required prior to each flight of the Beech Models 65-90, 65-A90, B90, C90, C90A, E90, F90, 200, B200, 200C, B200C, 200CT, B200CT, 200T, B200T, 300, 1900 and 1900C airplanes:

COCKPIT

1. Control Locks - REMOVE
2. Elevator Trim:
   a. All airplanes except 1900/1900C - SET TO "0" UNITS
   b. 1900/1900C airplanes - SET TWO UNITS NOSE UP

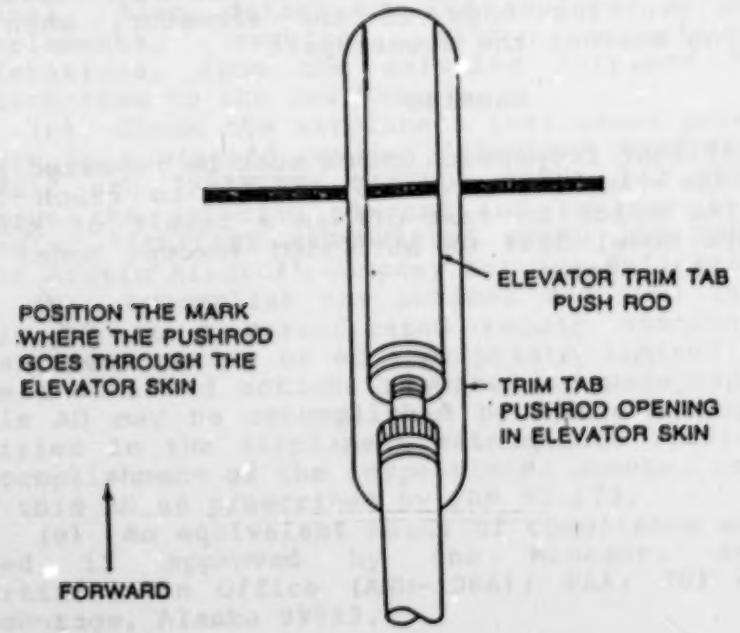
CAUTION

The elevator trim system must not be forced past the limits which are indicated on the elevator trim indicator scale either manually, electrically (except Model 300) or by action of the autopilot (except Model 300).

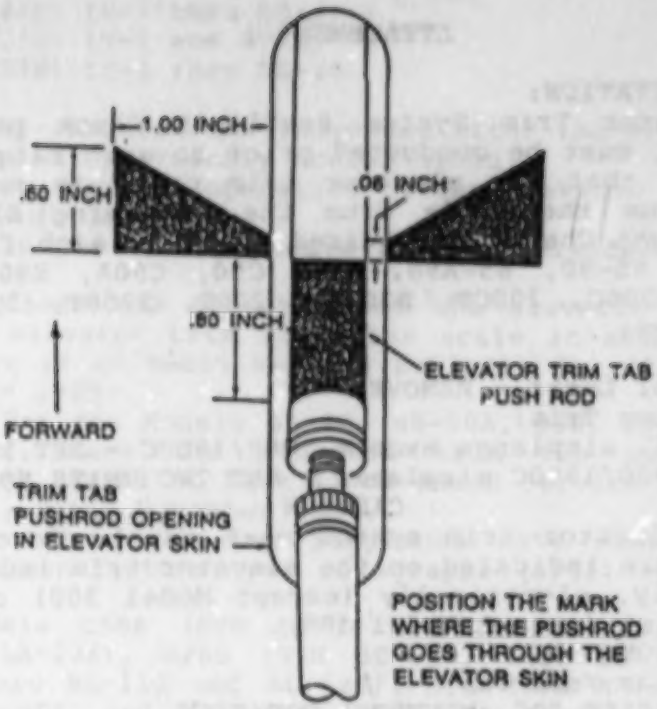
TAIL SECTION

1. Elevator Trim Tab
   a. VERIFY "0" (NEUTRAL) POSITION

1. On Model 65-90, 65-A90, B90, C90, C90A and E90 airplanes, the elevator trim tab "0" (neutral) position is determined by observing that the alignment marks on the elevator trim tab pushrods align with the alignment marks on the elevator (See Figure 1 or 2 below), when the elevator is resting against the downstops.



Pushrod Marking (Temporary)
Figure 1



Pushrod Marking (Permanent)
Figure 2

2. On F90, 200 Series, 300 and 1900/1900C airplanes, the elevator trim tab "O" (neutral) position is determined by observing that the trailing edge of the elevator trim tab aligns with the trailing edge of the elevator, when the elevator is resting against the downstops.

WARNING

The above Preflight Inspection check must be repeated prior to take-off if the elevator trim is allowed to reach limit travel at any time prior to take-off as a result of MANUAL, ELECTRICAL (except Model 300) OR AUTOPILOT (except Model 300) OPERATION of the trim system.

ARCTIC AIRCRAFT
Airworthiness Directive
VOLUME I

86-20-04 ARCTIC AIRCRAFT COMPANY: Amendment 39-5412. Applies to Arctic Model Interstate S-1B2 "Tern" (Serial Numbers 1001 through 1029) airplanes certificated in any category.

Compliance: Required within the next 100 hours time-in-service (TIS) or within 31 calendar days after the effective date of this AD, whichever comes first, unless already accomplished.

To preclude the possibility of catastrophic flutter of the ailerons and/or the elevators during flight at high speeds, resulting in possible loss of the airplane, accomplish the following:

(a) Re-mark the airspeed indicator by removing that portion of the yellow arc that presently extends from 142 miles per hour (123 knots) to 160 miles per hour (139 knots), and the red radial line presently located at 160 miles per hour (139 knots), and marking a red radial line located at 142 miles per hour (123 knots).

(b) Replace the existing Airplane Flight Manual (AFM) with the FAA approved Airplane Flight Manual for the Arctic Model Interstate S-1B2 airplane, Revision 7 dated April 15, 1986. If the airplane is currently operated as a seaplane, detach the FAA approved Seaplane Flight Manual Supplement from the existing Airplane Flight Manual and attach it to the new Manual. Also, detach any FAA approved Airplane Flight Manual Supplements, required with currently-installed major alterations, from the existing Airplane Flight Manual and attach them to the new Manual.

(c) Check the airplane's instrument panel to determine if there is a placard reading "SEAPLANE MANEUVERING SPEED 105 MPH (CAS)" and "SEAPLANE MAXIMUM SPEED 142 MPH (CAS)". If so, remove the existing placard and replace it with the placard reading "SEAPLANE MANEUVERING SPEED 105 MPH (CAS)", supplied with Arctic Aircraft Company Service Bulletin No. 5.

(d) Accomplish the actions required in paragraph (a) of this AD at a certificated repair station with a Class 1 instrument rating or an appropriate limited instrument rating. The checks and actions required in paragraphs (b) and (c) of this AD may be accomplished by the owner/operator. Make the entries in the airplane's maintenance records documenting the accomplishment of the inspections, checks, and actions required by this AD as prescribed by FAR 91.173.

(e) An equivalent means of compliance with this AD may be used if approved by the Manager, Anchorage Aircraft Certification Office (ANM-100A); FAA; 701 C Street, Box 14; Anchorage, Alaska 99513.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Arctic Aircraft Company, Post Office Box 6-141, Anchorage, Alaska 99502; Telephone (907) 243-1580; or FAA, Office of the Regional Counsel; Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on October 12, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Gordon K. Mandell; Federal Aviation Administration; Aircraft Certification Office, ANM-100A; 701 C Street, Box 14; Anchorage, Alaska 99513; telephone (907) 271-5927.

86-20-07 MCDONNELL DOUGLAS HELICOPTER COMPANY (Hughes Helicopters, Inc.): Amendment 39-5422. Applies to Model 369, 369A, 369D, 369E, 369H, 369HE, 369HM, and 369HS helicopters, including military Models YOH-6A and OH-6A, certificated in any category, equipped with tail rotor drive shaft flexible couplings, Part Number (P/N) 369A5501 or 369H92564.

Compliance required as indicated unless already accomplished.

To prevent failure of the tail rotor (T/R) drive shaft system and subsequent loss of T/R control, accomplish the following:

(a) Within 100 hours' time in service after the effective date of this AD, install aft coupling failsafe device (P/N's 369D25530 bolt and 369D25531 socket) in accordance with Part I of the applicable Service Information Notices (SIN) DN-143, HN-206, or EN-31, each dated August 26, 1986. Installation of the failsafe device on military Models YOH-6A or OH-6A helicopters in civil use shall be accomplished in accordance with Part I of SIN HN-206.

NOTE: The failsafe device required by paragraph (a) will be installed before delivery on all applicable Model 369E helicopters, Serial Number 0135E, and subsequent.

(b) Within 100 hours' time in service after the effective date of this AD, install forward coupling failsafe device (P/N's 369D25530 bolt and 369D25531 socket) in accordance with Part I of SIN DN-95, dated August 7, 1981, or Part III, HN-173, dated November 2, 1981, as applicable. Installation of the coupling failsafe device on military Models YOH-6A or OH-6A helicopters shall be accomplished in accordance with Part III of SIN HN-173.

(c) For all helicopters with tail rotor driveshaft flexible coupling failsafe devices installed, the T/R drive shaft forward and aft flexible couplings shall be checked as follows:

(1) At Each Preflight Check: Check for T/R backlash or looseness by rocking the T/R back and forth in its plane of rotation. The blade should not move in excess of 0.75 inch (1.93cm) at the blade tip without rotation of the main rotor blades.

(2) At Each Aircraft/Engine Shutdown: If thumping or rapping is heard from the T/R drive train during final revolutions of the T/R, check the T/R to assure that the T/R blade does not move in excess of 0.75 inch (1.93cm) at the blade tip without rotation of main rotor blades.

(d) The checks required by this AD may be performed by the pilot and must be recorded in accordance with FAR Section 91.173.

(e) If during the checks required by paragraph (c), the tail rotor blade tip movement exceeds the specified limits, prior to further flight, inspect and replace, as necessary, either or both fore and aft tail rotor drive shaft couplings.

(f) Rotorcraft may be ferried in accordance with the provisions of FAR Sections 21.197 and 21.199 to a base where the modifications and inspections of paragraphs (a) and (b) of this AD can be accomplished.

(g) An alternate method of compliance which provides an equivalent level of safety may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007.

The procedure shall be done in accordance with applicable parts of MDHC SIN's DN-143, HN-206, EN-31, all dated August 26, 1986; MDHC SIN DN-95, dated August 7, 1981; MDHC SIN HN-173, dated November 2, 1981. The incorporation by reference was approved by the Director of the FEDERAL REGISTER in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from McDonnell Douglas Helicopter Company, Centinela Avenue and Teal Street, Culver City, California 90230. These documents may be examined at the Office of the Regional Counsel, Federal Aviation Administration, Southwest Region, Room 158, Building 3B, 4400 Blue Mound Road, Fort Worth, Texas 76101, the Western Aircraft Certification Office, 15000 Aviation Boulevard, Hawthorne, California, or the Office of the FEDERAL REGISTER, 1100 L Street, NW., Room 8401, Washington, D.C.

This amendment supersedes Amendment 39-4186 (46 FR 40868), AD 81-17-02, as amended by Amendment 39-4221 (46 FR 46566), AD 81-17-02R1.

This amendment becomes effective October 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Wilbur F. Wells, Regulations Program Management, Aircraft Certification Division, FAA, P.O. Box 1689, Forth Worth, Texas 76101; telephone (817) 624-5123.

86-20-11 PIPER AIRCRAFT CORPORATION: Amendment 39-5441. Applies to Model PA-44-180T (Serial Numbers 44-8107001 through 44-8207020) airplanes certificated in any category.

Compliance: Required as indicated after the effective date of this AD, unless already accomplished.

To prevent smoke in the cockpit and possibly complete electrical failure resulting from shorting of ammeter terminal posts, accomplish the following:

(a) Within the next 50 hours time-in-service (TIS) after the effective date of this AD, replace both ammeters with Ammeter Replacement Kits, Piper Part No. 765-302, in accordance with the instructions contained in Piper Service Bulletin No. 847, dated August 28, 1986.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(c) An equivalent method of compliance if used, must be approved by the Manager, Atlanta Aircraft Certification Office, FAA, 1075 Inner Loop Road, College Park, Georgia 30337.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Piper Aircraft Corp., 2926 Piper Drive, Vero Beach, Florida 32960; or the FAA, Rules Docket, Office of Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on October 17, 1986.

FOR FURTHER INFORMATION CONTACT:

Bill Trammell, ACE-130A, Atlanta Aircraft Certification Office, FAA, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7781.

CESSNA
Airworthiness Directive
VOLUME I

86-20-12 CESSNA: Amendment 39-5442. Applies to the Model 404 (Serial Numbers 404-0001 through 404-0136, 404-0201 through 404-0246, 404-0401 through 404-0460, 404-0601 through 404-0695, and 404-0801 through 404-0859) airplanes certificated in any category:

Compliance: Required as indicated, unless already accomplished.

To ensure the structural integrity of the engine mount beams, accomplish the following:

(a) Inspect the engine beams for cracks in accordance with the provisions of Cessna Multi-Engine Service Bulletin MEB 86-7, dated April 18, 1986, per the following schedule:

(1) On all airplanes with 1600 or more hours time-in-service (TIS), fluorescent penetrant inspect the engine beams within the next 100 flight hours and at each 800 hours TIS thereafter.

(2) On all airplanes with less than 1600 hours TIS, fluorescent penetrant inspect the engine beams between 1600 and 1700 hours TIS and at each 800 hours TIS thereafter.

(3) The fluorescent penetrant inspections required by paragraphs (a)(1) and (a)(2) of this AD are no longer required on engine beams that have Service Kit SK 404-40 installed.

(b) If cracks are found in the inspection of Paragraph (a), prior to further flight perform the following in accordance with Cessna Service Bulletin MEB 86-7:

(1) If cracks found in the top (horizontal portion) of the beam are less than 2.00 inches in length, stop drill and install SK 404-40 in accordance with MEB 86-7.

(2) If cracks found in the top (horizontal portion) of the beam are greater than 2.00 inches in length, contact Cessna Aircraft Company for FAA approved repair disposition at the following address: Cessna Aircraft Company, Customer Service, P.O. Box 1521, Wichita, Kansas 67201; Telephone (316) 946-7550.

(c) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where the provisions of this AD can be accomplished.

(d) Any equivalent method of compliance with this AD must be approved by the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Cessna Aircraft Company, P.O. Box 1521, Wichita, Kansas 67201; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective October 21, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Lawrence S. Abbott, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4409.

86-20-13 ALLISON GAS TURBINE DIVISION: Letter issued October 8, 1986. Applies to Allison Model 250-C28 and 250-C30 series turboshaft engines installed in aircraft certificated in any category. The following engine models and turbine serial numbers are affected:

ENGINE MODEL	TURBINE SERIAL NUMBER
250-C28B	CAT 70001 thru 70802 and 70804
250-C28C	CAT 28001 thru 28046
250-C30 series	CAT 90001 thru 95436 and 95438

except existing Model 250-C28 and 250-C30 series engines which have incorporated Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, or the following FAA approved equivalents:

Allison Message THO-2639W-RFR-85 dated February 7, 1985.
Allison C28 Overhaul Manual Temporary Revision 72-7, Page 12 dated January 22, 1986.
Allison C30 Overhaul Manual Revision 1, dated July 1, 1985, section 72-50-00, paragraph F(7), page 524.
Allison Commercial Service Letter 250-C28/C30 CSL-2071/3073 dated June 1, 1985.

This priority letter AD is effective immediately upon receipt.

Compliance required as indicated unless already accomplished.

To prevent possible gas generator turbine overspeed failure/uncontained failure, accomplish the following:

(a) Within the next 5 hours time-in-service after receipt of this letter, but not later than December 10, 1986, for in-service engines, inspect the gas generator turbine splined adapter locknut torque in accordance with Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, or FAA approved equivalent.

(b) Before initial flight, for uninstalled affected turbine assemblies, inspect the gas generator turbine splined adapter locknut torque in accordance with Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, or FAA approved equivalent.

NOTE: The requirements of this priority letter AD were previously published in Allison Commercial Service Letter 250-C28/C30 CSL-A-2084/3087, Revision 1, dated September 29, 1986, FAA approved by the Manager, Chicago Aircraft Certification Office.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR) 21.197 and 21.199 to a base where the priority letter AD can be accomplished.

Upon request of an operator, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Documents pertinent to this priority letter AD may be obtained from Allison Gas Turbine Division, General Motors Corporation, P.O. Box 420, Indianapolis, Indiana 46206-0420, or may be examined at the Office of Regional Counsel, FAA, Attn: Rules Docket No. 86-ANE-41, 12 New England Executive Park, Burlington, Massachusetts 01803.

This priority letter AD is effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:

Royace Prather, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone (312) 694-7132.

86-18-10 PIPER: Letter issued September 4, 1986. Applies to Model PA-42-1000 (Serial Numbers 42-5527002 through 42-5527033) airplanes certificated in any category.

Compliance: Required within the next 10 hours time-in-service after receipt of this AD, unless already accomplished.

To prevent loss of power and wing damage accomplish the following:

(a) Fabricate a checking device from 3/8 inch O.D. polyethylene plastic tubing, 48 inches in length with a wall thickness of approximately 0.060 inches.

NOTE 1: Polyethylene tubing is used in plumbing and air conditioning installations and may be found in hardware stores. Other types of plastic tubing may not work due to friction build up.

(b) Chamfer the end of the tube which will be inserted into the vent lines. Mark the tube at a point 40 inches from the chamfered end.

(c) Remove the vent well covers located on top of the left and the right wing tip tanks.

(d) Insert the checking device into each wing tip tank vent line up to the 40 inch mark.

(e) If the checking device can be inserted to the 40 inch mark, the vent line is clear. Reinstall the vent well covers. No further action is required.

(f) If the checking device cannot be inserted to the 40 inch mark, prior to further flight:

(1) Drain the fuel from the airplane on the affected side(s).

(2) Remove the forward outboard access cover from the bottom of the left and/or right wing(s) as required.

(3) Visually inspect the affected tip tank vent lines for blockage or deformation.

(4) Remove the fuel cap on the affected tip tank(s), depress the antisiphon flapper valve and using a light and mirror, visually inspect the upper portion of the wing tip tanks fuel vent line for blockage or deformation.

(5) Replace any lines found blocked or deformed.

(6) Reinstall the wing access plates with the sealant specified in the airplane maintenance instructions.

(7) Fuel the airplane and check for leaks.

NOTE 2: Piper Telex Service Bulletin No. 846, dated August 26, 1986, applies to the subject of this AD.

(g) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(h) Within five (5) days of accomplisning this AD, report, in writing, all defects found during accomplishment of this AD to the Manager, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337. (Reporting approved by the Offices of Management and Budget under OMB No. 2120-0056.)

(i) An alternate method of compliance which provides an equivalent level of safety, may be approved by the Manager, Atlanta Aircraft Certification Office.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Gil Carter, ACE-140A, FAA, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7435.

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AEROSPATIALE
Airworthiness Directive
VOLUME I

86-21-01 SOCIETE NATIONALE INDUSTRIELLE AEROSPATIALE (SNIAS): Amendment 39-5431. Applies to all Aerospatiale Model SA 365 series helicopters certificated in all categories.

Compliance is required as indicted, unless already accomplished.

To prevent failure of the main rotor head sleeves, accomplish the following:

(a) For those helicopters exhibiting a severe tracking defect, inspect the main rotor head sleeves as follows before further flight:

(1) Remove main rotor blades and visually inspect the sleeves for cracks, delaminations, or separated bushes; and

(2) Replace any sleeves found damaged with serviceable sleeves.

(b) For Model SA 365C, C1, C2, and C3 helicopters, replace Part Numbers (P/N's) 365A.31.1831.00, .01, .02, .03, and 365A31.1851.00 and .01 main rotor head sleeves as follows:

(1) For sleeves which have 1,900 or more hours' time in service on the effective date of this AD, replace the sleeves within 100 hours' time in service; and

(2) For sleeves which have less than 1,900 hours' time in service on the effective date of this AD, replace the sleeves before they reach 2,000 hours' time in service.

(c) For Model SA 365N and N-1 helicopters, replace P/N's 365A31.1829.02 and .03 and 365A31.1828.00 and .01 main rotor head sleeves as follows:

(1) For sleeves which have 900 or more hours' time in service on the effective date of this AD, replace the sleeves within 100 hours' time in service; and

(2) For sleeves which have less than 900 hours' time in service on the effective date of this AD, replace the sleeves before they reach 1,000 hours' time in service.

(d) An alternate method of compliance with this AD, which provides an equivalent level of safety, may be used when approved by the Manager, Aircraft Certification Division, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, or by the Manager, Aircraft Certification Office, AEU-100, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium.

(e) In accordance with FAR Sections 21.197 and 21.199, flight is permitted to a base where the maintenance required by this AD may be accomplished.

NOTE: Aerospatiale Telex Service SA 365C Nos. 01.18 and .01.19 and Aerospatiale Telex Service SA 365N-FS No. 01.18 pertain to this subject.

This amendment becomes effective October 24, 1986.

FOR FURTHER INFORMATION CONTACT:

John Varoli, Manager, Aircraft Certification Office, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium, APO NY 09667, telephone 513.38.30; or R. T. Weaver, Rotorcraft Standards Staff, ASW-110, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone (817) 624-5122.

86-21-07 BEECH: Priority Letter issued October 16, 1986. Applies to all Model 35, 35R, A35, B35, C35, D35, E35, F35, G35, H35, J35, K35, M35, N35, P35, S35, V35, V35A and V35B (all serial numbers) airplanes certificated in any category except to those Model S35, V35, V35A and V35B airplanes modified per Supplemental Type Certificate SA2149CE (straight tail conversion).

Compliance: Required prior to further flight after receipt of this AD, unless already accomplished.

To prevent possible failure of the V-tail empennage when operating the airplane in conditions where only marginal structural strength may be available, accomplish the following:

(a) For Models 35, 35R, A35, B35, C35, D35, E35, F35, or G35:

(1) Fabricate and install on the instrument panel as near as possible to the airspeed indicator and in clear view of the pilot the following placard using letters of 0.10 inch minimum height:

"Never exceed speed, V_{ne}, 144 MPH (125 knots) IAS
Maximum structural cruising speed, V_{no}, 135 MPH (117 knots) IAS
Maneuvering speed, V_A, 127 MPH (110 knots) IAS."

(2) Mark the outside surface of the airspeed indicator with lines of approximately 1/16 inch by 3/16 inch as follows:

(A) Red line at 144 MPH (125 knots), and

(B) Yellow line at 135 MPH (117 knots), and

(C) A white slippage mark between the airspeed indicator glass and case to visually verify glass has not rotated.

(3) Place a copy of this AD in the Pilots Operating Handbook and FAA Approved Airplane Flight Manual and observe the specified limits.

(4) Operate the airplane in accordance with these speed limitations.

(b) For Models H35, J35, K35, M35, N35, P35, S35, V35, V35A and V35B:

(1) Fabricate and install on the instrument panel as near as possible to the airspeed indicator and in clear view of the pilot the following placard using letters of 0.10 inch minimum height:

"Never exceed speed, V_{ne}, 197 MPH (171 knots) IAS
Maximum structural cruising speed, V_{no}, 177 MPH (154 knots) IAS
Maneuvering speed, V_A, 132 MPH (115 knots) IAS."

(2) Mark the outside surface of the airspeed indicator with lines of approximately 1/16 inch by 3/16 inch as follows:

(A) Red line at 197 MPH (171 knots), and

(B) Yellow line at 177 MPH (154 knots), and

(C) A white slippage mark between the airspeed indicator glass and case to visually verify glass has not rotated.

(3) Place a copy of this AD in the Pilots Operating Handbook and FAA Approved Airplane Flight Manual and observe the specified limits.

(4) Operate the airplane in accordance with these speed limitations.

(c) For all applicable models, fabricate and install on the instrument panel, over the existing "Utility Category" placard the following placard using letters of 0.10 inch minimum height:

"Normal Category Operation Only"

and operate the airplane accordingly.

(d) The requirements of this AD may be accomplished by the holder of a pilot certificate issued under PART 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed in FAR 91.173.

(e) An equivalent method of compliance with this AD may be used when approved by the Manager, Wichita Aircraft Certification Office, Federal Aviation Administration, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

This airworthiness directive becomes effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Brian Yanez, FAA, Wichita Aircraft Certification Office, ACE-120W, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4409.

86-21-08 SOCATA: Amendment 39-5444. Applies to Models TB10 and TB20 (Serial Numbers 1 through 342, 344 through 381, 383 through 413, 415 through 422, 424, 430, 431, 433, and 439 through 441) airplanes certificated in any category.

Compliance: Required within 50 hours time-in-service or 60 days, whichever occurs first, from the effective date of this AD, unless already accomplished.

To prevent possible structural damage and loss of airframe integrity, accomplish the following:

(a) Visually inspect the fuselage area under the battery tray for damage caused by battery electrolyte leaks.

(1) If damage exists, before further flight, repair the damage or replace the damaged component(s) in accordance with Advisory Circular No. 43.13-1A and applicable manufacturer's maintenance information and modify the battery tray as specified in paragraph (a)(2) below.

(2) If damage does not exist, modify the battery tray in accordance with the instructions in the "DESCRIPTION" Section 1 of SOCATA Service Letter No. 18 dated February 1985.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium.

All persons affected by this AD may obtain copies of the documents referred to herein upon request to SOCATA Groupe Aerospatiale, B.P. 38, 65001 Tarbes, France, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on October 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932, or T. Ebina, Brussels Aircraft Certification Office, FAA, AEU-100, Europe, Africa and Middle East Office, c/o American Embassy, B-1000 Brussels, Belgium; Telephone 513.38.30.

86-21-09 BRITISH AEROSPACE (BAe): Amendment 39-5447. Applies to BAe Jetstream Model 3101 (all serial numbers) airplanes certificated in any category which have incorporated Arkansas Modification Center (AMC) Supplemental Type Certificate (STC) No. SA5900SW baggage pod serial numbers 002 through 044 inclusive.

Compliance: Required within the next fifty (50) landings after the effective date of this AD, unless already accomplished.

NOTE: If landings are not recorded, one hour time-in-service (TIS) equals two landings.

To prevent possible chafing of the flap jack lock valve pressure pipe and loss of hydraulic fluid, accomplish the following:

(a) Visually inspect flap jack lock valve hydraulic pressure pipe BAe Part Number (P/N) 616302 for evidence of chafing in accordance with Section 2. "ACCOMPLISHMENT INSTRUCTIONS," Paragraph B "ACCOMPLISHMENTS," of BAe Alert Service Bulletin (ASB) No. 27-A-JA860226, dated August 11, 1986.

(1) If chafing has occurred, before further flight,

(i) Replace hydraulic pressure pipe P/N 616302 with a serviceable airworthy part, in accordance with BAe S/B No. 27-A-JA860226, and

(ii) Modify pod by incorporating an aperture in accordance with Section 2., "ACCOMPLISHMENT INSTRUCTIONS," paragraphs 1 through 8 of revised AMC Service Bulletin (S/B) No. 25-0002(-2), dated September 11, 1986.

(iii) Accomplish paragraph (b) of this AD.

(2) If no chafing has occurred, before further flight,

(i) modify pod by incorporating an aperture in accordance with Section 2., "ACCOMPLISHMENT INSTRUCTIONS," paragraphs 1 through 8 of AMC S/B No. 25-0002(-2), and

(ii) accomplish paragraph (b) of this AD.

(b) Measure the clearance distance between the flap jack lock valve hydraulic pressure pipe, P/N 616302 and the pod membrane smoke detector mounting screws, over the whole flap position operating range, in accordance with Section 2., "ACCOMPLISHMENT INSTRUCTIONS". If the clearance at all flap positions is:

(1) 0.50 inches or more, install the aperture cover plate provided in AMC Kit P/N 31-5179-37 and accomplish paragraphs 14 through 17 of Section 2., "ACCOMPLISHMENT INSTRUCTIONS," of AMC S/B No. 25-0002(-2), and return the airplane to service.

(2) Less than 0.50 inches,

(i) Modify the pod in accordance with paragraphs 18 through 29 of Section 2., "ACCOMPLISHMENT INSTRUCTIONS," of AMC S/B No. 25-0002(-2), and

(ii) Install baggage pod and repeat the actions specified in paragraph (b) of this AD.

(c) Aircraft may be flown in accordance with FAR 21.197 to a location where this Airworthiness Directive (AD) can be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, FAA, Southwest Region, Special Programs Branch, ASW-190, 4400 Blue Mound Road, Post Office Box 1689, Fort Worth, Texas 76101.

All persons affected by this AD may obtain copies of Arkansas Modification Center, Inc., (AMC) Service Bulletin (S/B) No. 25-0002(-2) dated July 22, 1986, Revised September 11, 1986, referred to herein upon request to the Arkansas Modification Center, Inc., Post Office Box 3356, Adams Field, Little Rock, Arkansas 72203, and Alert Service Bulletin No. 27-A-JA860226, dated August 11, 1986, referred to herein upon request to the British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective October 29, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Ted Ebina, Aircraft Certification Staff, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, Brussels, Belgium; Telephone (322) 513.38.30; or Mr. Harvey A. Chimerine, FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

PIPER
Airworthiness Directive
VOLUME I

86-21-10 PIPER AIRCRAFT CORPORATION: Amendment 39-5435. Applies to Model PA-42-1000 (S/N's 42-5527001 through 42-5527033) airplanes certificated in any category.

Compliance: Required within 10 hours time-in-service after the effective date of this AD, unless already accomplished.

To preclude engine flameout during landing, accomplish the following:

(a) Insert copies of this AD in the Pilots Operating Handbook and FAA approved Aircraft Flight Manual (POH/AFM) and operate as described herein:

(1) Insert the following in the Operating Limitations Section on pages 2-9: "USE OF CONTINUOUS IGNITION" - "Ignition must be turned ON prior to landing and remain ON until the landing is completed or until climb has been established following a balked landing."

(2) Insert the following in the Normal Procedures Section, pages 4-14, in the BEFORE LANDING CHECKLIST: "Ignition Switches. . . ON."

(3) Insert the following in the Normal Procedures Section, pages 4-15 in the BALKED LANDING checklist and pages 4-16 in the AFTER LANDING Checklist: "Ignition Switches. . . NORMAL."

NOTE: Piper Service Bulletin 816A, dated January 24, 1986, applies to the subject of this AD.

(b) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 43.9 and FAR 91.173.

(c) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Atlanta Aircraft Certification Office, ACE-115A, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7428.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Piper Aircraft Corporation, Vero Beach, Florida, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on November 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Gil Carter, FAA, Atlanta Aircraft Certification Office, ACE-140A, 1075 Inner Loop Road, College Park, GA 30337; Telephone (404) 763-7435.

PIPER
Airworthiness Directive
Final Copy Of Letter
VOLUME I

86-18-10 PIPER AIRCRAFT CORPORATION: Amendment 39-5446. Applies to Model PA-42-1000 (S/N's 42-5527002 through 42-5527033) airplanes certificated in any category.

Compliance: Required within the next 10 hours time in service after receipt of this AD, unless already accomplished.

To prevent loss of power and wing damage accomplish the following:

(a) Fabricate a checking device from 3/8 inch O.D. polyethylene plastic tubing, 48 inches in length with a wall thickness of approximately 0.060 inches.

NOTE 1: Polyethylene tubing is used in plumbing and air conditioning installations and may be found in hardware stores. Other types of plastic tubing may not work due to friction buildup.

(b) Chamfer the end of the tube which will be inserted into the vent lines. Mark the tube at a point 40 inches from the chamfered end.

(c) Remove the vent well covers located on top of the left and the right wing tip tanks.

(d) Insert the checking device into each wing tip tank vent line up to the 40 inch mark.

(e) If the checking device can be inserted to the 40 inch mark, the vent line is clear. Reinstall the vent well covers. No further action is required.

(f) If the checking device cannot be inserted to the 40 inch mark, prior to further flight:

(1) Drain the fuel from the airplane on the affected side(s).

(2) Remove the forward outboard access cover from the bottom of the left and/or right wing(s) as required.

(3) Visually inspect the affected tip tank vent lines for blockage or deformation.

(4) Remove the fuel cap on the affected tip tank(s), depress the antisiphon flapper valve and using a light and mirror, visually inspect the upper portion of the wing tip tanks fuel vent line for blockage or deformation.

(5) Replace any lines found blocked or deformed.

(6) Reinstall the wing access plates with the sealant specified in the airplane maintenance instructions.

(7) Fuel the airplane and check for leaks.

NOTE 2: Piper Telex Service Bulletin No. 846, dated August 26, 1986, applies to the subject of this AD.

(g) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(h) Within five (5) days of accomplishing this AD, report, in writing, all defects found during accomplishment of this AD to the Manager, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, GA 30337. (Reporting approved by the Offices of Management and Budget under OMB No. 2120-0056.)

(i) An alternate method of compliance which provides an equivalent level of safety, may be approved by the Manager, Atlanta Aircraft Certification Office.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Piper Aircraft Corporation, 2926 Piper Drive, Vero Beach, Florida 32960; or FAA, Office of Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on October 27, 1986, to all persons except those to whom it has already been made effective by priority letter from the FAA dated September 4, 1986, and is identified as AD 86-18-10.

FOR FURTHER INFORMATION CONTACT:

Mr. Gil Carter, ACE-140A, Aerospace Engineer, Propulsion Branch, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7435.

SIKORSKY
Airworthiness Directive
Final Copy Of Letter
VOLUME I

86-14-07 SIKORSKY AIRCRAFT: Amendment 39-5432. Applies to all Model S-76A helicopters certificated in any category and model S-76B helicopters, serial numbers 760262, 760269, 760299, 760303, and 760310 through 760319, certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent operation with a failed pilot's yaw control rod assembly, P/N 76400-00034-041, accomplish the following:

(a) Prior to further flight, inspect the push rod assembly in accordance with Section E, paragraph 1, of Sikorsky Alert Service Bulletin (ASB) No. 76-ASB-76-67-22A, dated July 7, 1986, or an FAA-approved equivalent. If no dent, crack, distortion, or bowing is detected in the rod, install a placard legible to the pilot and in full view of the pilot stating "single pilot operation prohibited." This placard is to remain until the inspection required by paragraph (b) below is accomplished.

(b) Within the next 25 hours' time in service after the effective date of this AD, inspect the push rod assembly for condition of heat treat in accordance with Section E, paragraph 2, of Sikorsky ASB No. 76-ASB-76-67-22A, dated July 7, 1986, or an FAA-approved equivalent.

(c) If as a result of the inspection of paragraph (a), a dent, crack, distortion, or bowing is detected or if as a result of the inspection of paragraph (b) above, the heat treat (hardness) is incorrect, replace the rod assembly with a new or serviceable component that complies with this AD prior to further flight.

(d) Aircraft may be ferried in accordance with the provision of FAR Sections 21.197 and 21.199 to a base where the requirements of the AD can be accomplished.

(e) Upon request, an alternate method of compliance which provides an equivalent level of safety with the requirements of this AD may be approved by the Manager, Boston Aircraft Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7118.

Sikorsky Aircraft ASB No. 76-ASB-76-67-22A identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Sikorsky Aircraft, Division of United Technologies, North Main Street, Stratford, Connecticut 06601. This document also

may be examined at the Rules Docket, Office of the Regional Counsel, Federal Aviation Administration, Southwest Region, 4400 Blue Mound Road, Fort Worth, Texas, 76106.

This amendment becomes effective October 20, 1986, as to all persons except those to whom it was made immediately effective by individual priority letter AD No. 86-14-07 issued July 9, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Cheryl McCabe, ANE-152, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7112.

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86-22-04 ROGERSON HILLER CORP.: Amendment 39-5430. Applies to Model UH-12D, UH-12E, and UH-12E4 series helicopters, including military Models OH-23F and OH-23G, and all those converted in accordance with STC's SH177WE and SH178WE, certificated in any category, equipped with main rotor blade assembly Parson's P/N 2253-1101-04 or 2253-1101-03. This AD supersedes AD 80-14-12, Amendment 39-3836.

Compliance is required as indicated, unless already accomplished.

To prevent main rotor blade failure due to cracking of the spar or delamination of the trailing edge skin from the spar, accomplish the following:

(a) Prior to the first flight of each day after the effective date of this AD, visually check the main rotor blades (P/N 2253-1101-04 or -03) for cracks in the leading edge area identified in figure 1 of Rogerson Hiller Service Bulletin (SB) No. UH12-51-6, dated December 19, 1985.

(b) Within the next 25 hours' time in service after the effective date of this AD and thereafter at intervals not to exceed 25 hours' time in service from the last inspection, conduct a dye penetrant or magnaflux inspection of the blade for cracks in accordance with paragraph IIB of Rogerson Hiller SB No. UH12-51-6, dated December 19, 1985.

(c) Within the next 100 hours' time in service after the effective date of this AD and thereafter at intervals not to exceed 100 hours' time in service from the last inspection, conduct a visual and coin tap inspection of the spar to trailing-edge-skin bond line for corrosion and voids in accordance with paragraph IIC of Rogerson Hiller SB No. UH12-51-6, dated December 19, 1985.

(d) If the blade has not been overhauled and has over 1,000 hours' time in service, or has had the 2,500-hour overhaul and has more than 3,500 hours' time in service, overhaul the blade within the next 100 hours' time in service and thereafter at intervals not to exceed 1,000 hours' time in service.

(e) When the overhauls required by paragraph (d) have been accomplished, conduct the dye penetrant checks required by paragraph (b) at intervals not to exceed 100 hours' time in service.

NOTE 1: The overhauls required by paragraph (d) may be accomplished by an FAA authorized repair station whose certificate indicates approval for overhaul or major repair of Fairchild Hiller main rotor blades.

NOTE 2: A maintenance record entry showing compliance with this AD is required by FAR Section 91.173.

(f) If discrepancies are found as a result of compliance with this AD which exceed the limitations specified in Rogerson Hiller SB No. UH12-51-6, dated December 19, 1985, replace the blade prior to further flight.

(g) Special flight permits may be issued in accordance with FAR Sections 21.197 and 21.199 to operate helicopters to a base for the accomplishment of inspections required by this AD.

(h) Alternative inspections, modifications, blade overhaul methods, or other actions which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

This procedure shall be done in accordance with Rogerson Hiller Service Bulletin UH12-51-6, revised December 19, 1985. This incorporation by reference was approved by the Director of the FEDERAL REGISTER in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from Rogerson Hiller Corporation, 2140 West 18th Street, Port Angeles, Washington 98362-0262.

Copies may be inspected at the Office of Regional Counsel, FAA, 4400 Blue Mound Road, Fort Worth, Texas or at the Office of the FEDERAL REGISTER, 1100 L Street, NW., Room 8401, Washington, D.C.

This amendment becomes effective November 3, 1986.

This amendment supersedes Amendment 39-3836 (45 FR 46345), AD 80-14-12.

FOR FURTHER INFORMATION CONTACT:

Mr. Sam Brodie, Rotorcraft Standards Staff, ASW-110, Aircraft Certification Division, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone (817) 624-5116 or FTS 734-5116.

GATES LEARJET
Airworthiness Directive
VOLUME I

86-22-05 GATES LEARJET: Amendment 39-5448. Applies to the following Gates Learjet series airplanes, models/serial number listed below, certificated in any category.

MODEL	SERIAL NUMBER
23	003 thru 089 (if equipped with dual flap actuators)
23	090 thru 099
24	100 thru 357
25	003 thru 373
28	001 thru 005
29	001 thru 004
35	002 thru 545, 589 thru 598
36	001 thru 053, and 055
55	001 thru 121

Compliance required as indicated, unless previously accomplished.

To prevent impairment of flap operation, an asymmetric flap condition, false gear warning horn signals, or incorrect biasing of the stall warning system, due to flap sector upper mount bracket failures, accomplish the following:

A. Within the next 50 hours time-in-service after the effective date of this AD, inspect the flap sector upper mounting brackets for cracks, in accordance with instructions in Gates Learjet Corporation Airplane Modification Kit (AMK) 86-4 or 55-86-2, as applicable.

1. If cracks are found in either the left-hand or right-hand flap sector upper mounting brackets (Figure 1 of AMK), prior to further flight, replace both brackets and install stiffeners in accordance with the applicable AMK.

2. If cracks are not found in the flap sector upper mounting brackets, replace the brackets and install stiffeners in accordance with the applicable AMK within 100 hours time-in-service after the effective date of this AD.

B. If both flap sector upper mounting brackets have been previously replaced with steel brackets, compliance with this AD is not required.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

D. Alternate means of compliance with this AD, which provides an acceptable level of safety, may be used when

approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas.

This supersedes AD 84-20-06, Amendment 39-4908.

This amendment becomes effective November 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Larry S. Abbott, Airframe Branch, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4409.

86-22-06 CESSNA: Amendment 39-5453. Applies to Models 208 and 208A (Serial Numbers 20800001 thru 20800105) airplanes certificated in any category.

Compliance: Required by December 31, 1986, unless already accomplished.

To prevent fuel starvation during takeoff due to improper positioning of the wing fuel tank selectors, accomplish the following:

(a) For Models 208 and 208A (Serial Numbers 20800001 through 20800105) airplanes, install the Cessna fuel selector warning system, revise the POH/AFM, and perform all required system checks, as described in Cessna Bulletin CAB86-8 dated October 10, 1986.

(b) For Models 208 and 208A (Serial Numbers 20800001 through 20800083) airplanes, modify the low fuel level transmitter supports as described in Cessna Bulletin CAB 86-26, dated September 5, 1986.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent method of compliance with this AD may be approved by the Manager, Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this AD may obtain copies of the documents referred to herein upon request to Cessna Aircraft Company, Customer Services, Post Office Box 1521, Wichita, Kansas 67201; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This action supersedes AD 86-09-08, Amendment 39-5308, published May 12, 1986 (51 FR 17322) and withdraws NPRM Docket Number 86-CE-13-AD published June 5, 1986 (51 FR 20495).

This amendment becomes effective on November 7, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Paul O. Pendleton, FAA, Aircraft Certification Office, ACE-140W, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4427.

86-22-07 Para-Flite Inc.: Priority letter issued October 29, 1986. Applies to Para-Flite Inc., swift reserve canopy P/N 82700, serial numbers R3-2750 through R3-3471.

Compliance required before further use, unless already accomplished. To prevent the possibility of the applicable canopies from performing below their standards on rate of descent, forward speed and flare capability, accomplish the following:

(A) Inspect and modify the canopy in accordance with Para-Flite Inc., drawing 886028 dated January 17, 1986.

(B) Do not use or repack the affected canopy unless paragraph (A) has been accomplished.

NOTE: Para-Flite Inc., recall notice dated January 7, 1986, is applicable.

Upon request, an equivalent means of compliance with requirements of this priority letter AD may be approved by the Manager, New York Aircraft Certification Office, New England Region, Federal Aviation Administration, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

Para-Flite Inc., drawing 886028 dated January 17, 1986, identified and described in this document, may be obtained upon request to Para-Flite Inc., 5800 Magnolia Avenue, Pennsauken, New Jersey 08109-1399. This document also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

This priority letter AD is effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:
Constantine Kallis, New York Aircraft Certification Office, 181 S. Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone 516-791-6427.

86-22-08 AVCO LYCOMING TEXTRON: Letter issued October 30, 1986. Applies to LTS 101-750 series turboshaft engines.

To prevent failure of the Number 3 bearing, which could lead to an uncontained failure of the power turbine disk, accomplish the following, unless already accomplished:

(a) Check, daily, the function of the rear bearing support housing (RBSH) scavenge debris monitor, P/N 4-301-152-01, and warning light system by removing the scavenge debris monitor and shorting the magnetic contacts, and checking for illumination of the cockpit warning light. If the light does not illuminate, correct the condition prior to further flight.

NOTE: Refer to the appropriate aircraft maintenance manual instructions.

(b) Inspect the RBSH scavenge debris monitor, P/N 4-301-152-01, for evidence of metal debris, daily, and whenever the cockpit warning light that is wired to the RBSH scavenge debris monitor is illuminated. If metal debris of sufficient quantity to illuminate the warning light system is evident on the scavenge debris monitor, prior to further flight, accomplish paragraphs (b)(1) through (b)(3) below.

NOTES: (1) Individual chips, flakes, slivers, or nuggets of metal of sufficient dimension to bridge the magnetic contacts and illuminate the warning light system, though they have not done so prior to this check, are cause for rejection.

(2) Metal of insufficient quantity to illuminate the warning light system is acceptable and may be cleaned from the scavenge debris monitor upon completion of the daily checks prescribed by this priority letter AD.

(3) Orient the scavenge debris monitor, P/N 4-301-152-01, to the six o'clock (bottom dead center) position within plus/minus 45 degrees.

(1) Conduct a clogging inspection of the Number 2 and 3 bearing oil jets in accordance with the procedure given in the appropriate engine maintenance manual, Chapter 79-30-00 for the LTS 101-750A-1 engine and Chapter 72-00-00 for the remaining engine models.

(i) If a clogging inspection value of 2.5 psig is exceeded during the above inspection, clean and inspect the RBSH and oil feed ring in accordance with steps 1.1 through 1.7 of Avco Lycoming Textron, Commercial Service Letter (CSL) Number 047, dated October 10, 1986, or Federal Aviation Administration (FAA) approved equivalent, and accomplish paragraphs (b)(2) and (b)(3) below.

(ii) If a clogging inspection value of 2.5 psig or less is obtained during the above inspection, accomplish paragraphs (b)(2) and (b)(3) below.

(2) Disassemble the RBSH assembly to correct the cause of metal debris contamination, and inspect the Number 2 and 3 bearings and associated components.

NOTE: Refer to the appropriate engine maintenance manual instructions.

(3) Accomplish the Lubrication System Contamination trouble shooting requirements in accordance with the procedure given in the appropriate engine maintenance manual, Chapter 72-00-00, to ensure the remainder of the engine has not been contaminated.

(c) Inspect, daily, the RBSH scavenge debris monitor, P/N 4-301-152-01, for evidence of varnish or carbon. If any varnish or carbon is evident on the scavenge debris monitor, remove and inspect the RBSH scavenge debris monitor screen prior to further flight, as follows:

(1) If varnish and/or carbon is blocking 25 percent or less of the total screen area, prior to further flight, conduct a clogging inspection of the Number 2 and 3 bearing oil jets per the appropriate engine maintenance manual, Chapter 79-30-00 for the LTS 101-750A-1 engine and Chapter 72-00-00 for the remaining engine models. If the clogging inspection limit, as specified in the appropriate engine maintenance manual, is exceeded, accomplish paragraph (i), as shown at the end of this priority letter AD.

(2) If varnish and/or carbon is blocking greater than 25 percent of the total screen area, accomplish the following prior to further flight:

(i) Conduct a clogging inspection of the Number 2 and 3 bearing oil jets per the appropriate engine maintenance manual, Chapter 79-30-00 for the LTS 101-750A-1 engine and Chapter 72-00-00 for the remaining engine models.

(A) If a clogging inspection value of 2.5 psig is exceeded during the above inspection, clean and inspect the RBSH and oil feed ring in accordance with steps 1.1 through 1.7 of Avco Lycoming Textron, CSL Number 047, dated October 10, 1986, or FAA approved equivalent, and accomplish paragraph (c)(2)(ii) below.

(B) If a clogging inspection value of 2.5 psig or less is obtained during the above inspection, accomplish paragraph (c)(2)(ii) below.

(ii) Disassemble the RBSH assembly to correct the cause of varnish and/or carbon accumulation, and inspect the Number 2 and 3 bearings and associated components.

NOTE: Refer to the appropriate engine maintenance manual instructions.

(d) Check the engine oil pump output pressure within 50 hours time in service (TIS) after the effective date of this priority letter AD, unless already accomplished, and thereafter whenever the oil pump is changed and whenever oil pressure adjustment is required, as follows:

(1) Install a tee fitting in the line connecting the oil pressure transmitter to the engine oil pump, and install a direct reading wet pressure gauge (any gauge ranging from 0 - 125 up to 200 psig, calibrated to plus/minus 2.0 percent at 100 psig) and an orifice of 0.025 inches in the line between the tee fitting and the wet pressure gauge.

CAUTION: Insure that the orifice is installed in the line between tee fitting and the wet pressure gauge, and not in the oil pressure supply line to the engine.

(2) Start the engine and warm the oil to 150 degrees Fahrenheit minimum. Increase the gas producer speed (Ng) to 95 percent. Stabilize at this Ng for at least one minute.

(3) Adjust the engine oil pressure to 90 psig plus/minus 3 psig by removing the lockwire from the slotted oil pressure adjustment slug on the right side of the oil pump and filter housing assembly, and turning the slug clockwise to increase pressure or counterclockwise to decrease pressure (one turn equals approximately 15 psig). If, prior to the above adjustment, the engine oil pump pressure indicated 70 psig or less, prior to further flight, disassemble the RBSH assembly and inspect the Number 2 and 3 bearings and associated components.

NOTE: Refer to the appropriate engine maintenance manual instructions.

(4) Verify that the aircraft oil pressure indicator indicates in the green arc when the oil pump is properly adjusted. If, upon completion of the check, the aircraft pressure gauge does not indicate in the green arc, the aircraft indicating system must be checked and corrected.

NOTE: Refer to the appropriate aircraft maintenance manual instructions.

(5) Remove the wet gauge, orifice, and tee fitting, and reconnect the oil pressure transmitter.

(6) Ensure that the slotted oil pressure adjustment slug is lockwired after proper adjustment.

(e) Perform an initial oil acidity check within 25 hours TIS from the effective date of this priority letter AD or within 50 hours TIS since the last oil change, whichever occurs later, unless already accomplished, and repeat at intervals not to exceed 25 hours TIS until such a time that the oil and oil pump filter are changed. Thereafter, perform an oil acidity test within 50 hours TIS after each oil and oil pump filter change, and repeat at intervals not to exceed 25 hours TIS until such a time that the oil and oil pump filter are changed. Conduct the acidity test in accordance with the procedure given in the appropriate engine maintenance manual, Chapter 71-00-00, paragraph 30.A., for the LTS 101-750A-1 and -750C-1 engines and paragraph 28.A. for the remaining engine models. If the acidity test limit, as specified in the appropriate engine maintenance manual, Chapter 71-00-00, paragraph 30.B., for the LTS 101-750A-1 and -750C-1 engines and paragraph 28.B. for the remaining engine models, is exceeded, prior to further flight, flush the engine lubrication system (including airframe supplied oil cooler, tank, lines, etc.) and change the oil and oil pump filter in accordance with the procedure given in the appropriate engine maintenance manual, Chapter 71-00-00, paragraph 32.B., for the LTS 101-750A-1 and -750C-1 engines and paragraph 30.B. for the remaining engine models.

(f) Following engine assembly in which the power turbine module was built up with a used RBSH and/or a used oil feed ring, conduct a post build engine runup and inspect the RBSH

assembly in accordance with step 1.7 of Avco Lycoming Textron CSL, Number 047, dated October 10, 1986, or FAA approved equivalent, prior to return to service. If a clogging inspection value of 2.5 psig is exceeded, clean and inspect the RBSH and oil feed ring in accordance with steps 1.1 through 1.7 of Avco Lycoming Textron, CSL Number 047, dated October 10, 1986, or FAA approved equivalent.

(g) If the type of oil is changed, conduct a clogging inspection of the Number 2 and 3 bearing oil jets in accordance with the procedure given in the appropriate engine maintenance manual, Chapter 79-30-00 for the LTS 101-750A-1 engine and Chapter 72-00-00 for the remaining engine models, not less than 5 hours and not to exceed 10 hours TIS after the oil change. If the clogging inspection limit, a specified in the appropriate engine maintenance manual, is exceeded, accomplish paragraph (i) below.

(h) If at any time, excluding initial engine oil pump installation, the pump output pressure is or was adjusted downward, prior to further flight, conduct a clogging inspection of the Number 2 and 3 bearing oil jets in accordance with the procedure given in the appropriate engine maintenance manual, Chapter 79-30-00 for the LTS 101-750A-1 engine and Chapter 72-00-00 for the remaining engine models. If the clogging inspection limit, as specified in the appropriate engine maintenance manual, is exceeded, accomplish (i) below.

(i) If the limit for the clogging inspection of the Number 2 and 3 bearing oil jets, as specified in the appropriate engine maintenance manual, Chapter 70-30-00 for the LTS 101-750A-1 engine and Chapter 72-00-00 for the remaining engine models, is exceeded (whether the inspection was done as prescribed above by this priority letter AD or by periodic engine maintenance manual requirements), accomplish the following prior to further flight:

(1) Disassemble the RBSH assembly to correct the cause of clogging, and inspect the Number 2 and 3 bearings and associated components.

NOTE: Refer to the appropriate engine maintenance manual instructions.

(2) Clean and inspect the RSBH and oil feed ring in accordance with Avco Lycoming Textron, CSL Number 047, dated October 10, 1986, or FAA approved equivalent.

NOTES: (1) For the purpose of this priority letter AD, carbon and varnish are defined as follows:

(A) Carbon: black flakes, grit, or particles of carbon (black oil or carbon powder in solution with the oil is not considered to be of concern).

(B) Varnish: a dark gold or brown, shiny film glaze. In extreme cases, varnish may be of sufficient thickness to chip or flake.

(2) Accomplishment of the oil pump output pressure check in accordance with paragraph (b) of priority letter AD Number 86-18-05, issued August 28, 1986, or at new production installation by the manufacturer, is considered an equivalent means of compliance with paragraph (d) of this priority letter AD for the initial check within 50 hours TIS.

(3) Anytime the clogging inspection of the Number 2 and 3 bearing oil jets results are recorded to document compliance with this priority letter AD, it is recommended that the actual gauge Number 2 value be recorded in the engine logbook.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the priority letter AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance times specified in this priority letter AD.

This priority letter AD is effective immediately upon receipt and supersedes priority letter AD Number 86-18-05, issued on August 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Robbin Goulet, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7089.

86-22-09 UNIVAIR AIRCRAFT CORPORATION: Amendment 39-5457. Applies to Model (Ercoupe) 415, -C, -CD, -D, -E, -G (all serial numbers), and (Forney) Models F1 and F1A (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 25 hours time-in-service after the effective date of this AD or at the next annual inspection whichever occurs first, unless already accomplished.

To prevent possible fuel leakage and loss of engine power, accomplish the following:

(a) Visually inspect the fuel line nipple located between the gascolator and the carburetor for cracks, incorrect alignment or over torque and prior to further flight replace as necessary, the nipple from a AN911-2D (aluminum) to a AN911-02 (brass or steel) fitting as described in Univair Aircraft Corporation, Ercoupe Bulletin No. 24A dated August 22, 1986.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Denver Aircraft Certification Office, Northwest Mountain Region, 10455 East Avenue, Suite 307, Aurora, Colorado 80010.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Univair Aircraft Corporation, 2500 Himalaya Road, Aurora, Colorado 80011; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on November 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Ronald F. May, FAA, Denver Aircraft Certification Office, ANM-170D, Northwest Mountain Region, 10455 East Avenue, Suite 307, Aurora, Colorado 80010; Telephone (303) 340-5582.

86-22-10 COLLINS AVIONICS DIVISION/ROCKWELL INTERNATIONAL: Amendment 39-5462. Applies to Collins Model DME-42, P/N 622-6263-002, Distance Measuring Equipment.

Compliance: Required as indicated after the effective date of this AD, unless already accomplished.

To prevent display of erroneous DME-42 information, accomplish the following:

(a) For aircraft with Collins Model DME-42 Distance Measuring Equipment installed, within the next 25 hours time-in-service after the effective date of this AD:

(1) Visually inspect all installed DME-42 equipment to determine if Part Number (P/N) 622-6263-002 transceivers are installed.

(2) If installed, prior to further flight remove the transceiver(s), and tag the unit(s) unserviceable until the modification specified in paragraph (b) of this AD is accomplished.

(b) For all affected DME-42 transceivers, P/N 622-6263-002, not installed in an aircraft, prior to further use modify and reidentify the transceiver in accordance with the instructions contained in Collins Service Bulletin DME-42 SB-6, dated October 15, 1986.

(c) Aircraft may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, Atlanta Aircraft Certification Office, ACE-115A, FAA, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7428.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Collins Avionics Division/Rockwell International, 400 Collins Road, N.E., Cedar Rapids, Iowa 52498; or the FAA, Rules Docket, Office of Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on November 17, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Trammell, FAA, Atlanta Aircraft Certification Office, ACE-130A, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7781.

BELLANCA
Airworthiness Directive
Revision
VOLUME I

76-23-03 R1 BELLANCA: Amendment 39-2772, as amended by Amendment 39-5454. Applies to BellancaMN Models 17-30, serials 30-139 thru 30-262, 17-30A, serials 30-263 and up, 17-31, serials 32-1 thru 32-14, and 17-31A, serials 32-15 and up, airplanes certificated in all categories.

For airplanes with 200 or more hours time in service on the effective date of this AD, compliance is required within the next 10 hours time in service and thereafter at intervals not to exceed 100 hours time in service or the next annual inspection, whichever occurs first.

For airplanes with less than 200 hours time in service on the effective date of this AD compliance is required before the accumulation of 210 hours time in service and thereafter at intervals not to exceed 100 hours time in service or the next annual inspection, whichever occurs first.

To prevent exhaust system failures which could result in cabin air contamination and heat damage to components in the nacelle accomplish the following:

(A) Visually inspect the muffler and tailpipe assemblies for cracks paying particular attention to the ball joint welds, the outlets of the muffler and resonator, and the support for the tailpipe assembly.

(B) Inspect the exhaust system for freedom of movement at the ball joints by removing the tailpipe support bolts. When the bolts are removed:

(1) The left tailpipe assembly must drop from its supported position unassisted.

(2) The right tailpipe assembly must move from its supported position when a two pound force is applied one inch below the resonator can 90 degrees to the axis of the resonator, i.e., the assembly must move when a two pound pull is applied one inch below the resonator can forward and down.

(3) If greater forces than the above are required:

(a) Disassemble the ball joint and inspect for surface abnormalities such as galling or wear marks.

(b) Rework the ball joints as required to correct noted discrepancies.

(c) Reassemble the ball joint. Do not overtighten the clamp as this may distort ball surfaces.

(4) Repeat (B)(1) thru (B)(3) as required until compliance with (B)(1) and (B)(2) is demonstrated.

Amendment 39-2772 became effective November 23, 1976.

This amendment, 39-5454, becomes effective November 7, 1986.

FOR FURTHER INFORMATION CONTACT:
Mr. Ty Krolicki, FAA, Chicago Aircraft Certification Office, ACE-140C, 2300 East Devon Avenue, Des Plaines, Illinois 60018; Telephone (312) 694-7032.

71-09-07 R1 CESSNA: Amendment 39-1202 as amended by Amendment 39-5445. Applies to turbocharged Models TU206 Series, TP206 Series, T207 Series (all serial numbers), and Models T210 thru T210N (Serial Numbers T210-0001 through T210-0454 and 21059200 through 21064897) airplanes certificated in any category.

Compliance: Required as indicated in the body of the AD.

To prevent exhaust gases from entering the cabin, accomplish the following:

(a) Within the next 25 hours time-in-service (TIS) after the effective date of this AD, unless already accomplished within the last 25 hours TIS, and thereafter at intervals not to exceed 50 hours TIS since the last inspection per this AD prior to its revision, inspect the exhaust manifold heat exchanger in accordance with the following:

(1) Test the complete exhaust manifold in the cabin heat exchanger area for cracks in accordance with the following procedures, or the more detailed procedures, outlined in the Cessna Service Manuals for the specified airplanes.

(i) Remove the heater shroud so that all surfaces of the exhaust manifold heat exchanger are exposed.

(ii) Attach the pressure side of an industrial vacuum cleaner to the tailpipe opening, using a rubber plug to effect a seal as required.

(iii) With vacuum cleaner operating, check the complete exhaust manifold in the heat exchanger area manually by feel or by using a soap solution and watching for bubbles. The exhaust manifold in the heat exchanger area must be free of air leaks.

(2) If cracks, breaks, or any leakage along the exhaust manifold cabin heat exchanger are found during the pressure test required by paragraph (a)(1) of this AD, prior to further flight replace the defective part with an airworthy part.

NOTE: Cessna Service Letter SE71-11, dated April 16, 1971, covers this same subject.

(b) An equivalent means of compliance with this AD may be used if approved by the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to the Cessna Aircraft Company, Piston Aircraft Marketing Division, Post Office Box 1521, Wichita, Kansas 67201; or the FAA, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Amendment 39-1202 became effective May 4, 1971.

This amendment, 39-5445, becomes effective on November 26, 1986.

FOR FURTHER INFORMATION CONTACT:

Paul O. Pendleton, FAA, Aircraft Certification Office, ACE-140W, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4427.

CESSNA
Airworthiness Directive
Revision
VOLUME I

75-23-08 R5 CESSNA: Amendment 39-2419 as amended by Amendment 39-2687, 39-2830, 39-3298, and 39-3609, are further amended by Amendment 39-5451. Applies to T310, 320, 340, 401, and 411 series airplanes and Models 402, 402A, 402B, 414, 421, 421A, 421B and 421C (S/N 421C0001 through 421C0683) airplanes, certificated in any category.

This AD is issued to combine in one document inspections and parts replacements required by previous ADs and require modifications now available which will increase the reliability of the exhaust systems on the affected airplanes.

Compliance: Required as indicated, unless previously accomplished.

To detect incipient failure and improve reliability of the engine exhaust systems installed on the above-noted airplanes, accomplish the following:

I. Repetitive General Exhaust System Inspection

A. On all new and in-service airplanes listed above, visually inspect the exhaust system components per procedures hereafter specified in accordance with the following schedule:

50 HOUR INSPECTION

Inspect components not listed in Table II or III within 50 hours time-in-service after the effective date of this AD or last inspection per AD 75-04-01 and within each 50 hours time-in-service thereafter.

100 HOUR INSPECTION

Inspect components listed in Table II within 100 hours time-in-service after the effective date of this AD or last inspection in accordance with this AD and within each 100 hours time-in-service thereafter.

EXEMPT COMPONENTS

Components listed in Table III are exempt from these inspection requirements.

1. CLEANING - In order to properly inspect the exhaust system, components must be clean and free of oil, grease, etc. If required, clean as follows:

a. Spray engine exhaust components with a suitable solvent (such as Stoddard Solvent), allow to drain, and then wipe dry with a clean cloth.

WARNING

NEVER USE HIGHLY FLAMMABLE SOLVENTS ON ENGINE EXHAUST SYSTEMS. NEVER USE A WIRE BRUSH OR ABRASIVES TO CLEAN EXHAUST SYSTEMS OR MARK ON THE SYSTEM WITH LEAD PENCILS.

b. Remove the heat shields from the turbocharger in accordance with heat shield removal procedures in the Service Manual.

c. Remove shields around the exhaust bellows or slip joints, multisegment "V" band clamps at joints, and other items which might hinder inspection of the system.

NOTE

Do not remove clamps.

2. VISUAL INSPECTION OF COMPLETE SYSTEM

NOTE

Conduct this inspection when the engine is cool

a. Visually inspect exhaust stacks for burned areas, cracks and looseness. Insure that attach bolts are properly torqued in accordance with the aircraft Service Manual.

NOTE

During this inspection give special attention to condition of bellows and welded areas along seams and around bellows, and weld seams around exhaust system components.

b. Visually inspect the flexible connection between the waste-gate and overboard duct (when applicable) for cracks and security.

c. Correct any major leaks in all areas of the exhaust system except waste-gate to tailpipe flexible coupling (when applicable) by replacement of defective parts or by repair in accordance with Part 43 of the FARs.

d. Visually inspect exhaust joint springs for correct compression. If the joint is disturbed or if springs are obviously loose, procede with the following inspection. (See Figure 1).

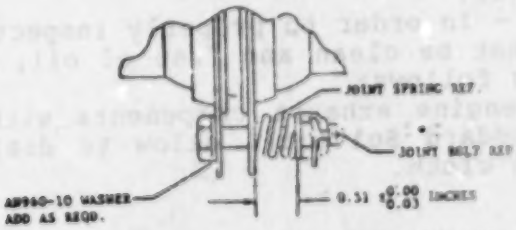

Figure 1. Typical Exhaust Joint Spring Installation

i. Before removal of exhaust joint springs, measure installed length of each spring. Those compressed to less than 0.45 inch must be replaced.

ii. Remove all springs and measure free length. Springs having a free length of less than 0.57 inch must be replaced.

NOTE

Add AN960-10 washers under head of joint bolts as required to obtain correct dimension. During installation, joint bolts should be tightened gradually and spring length checked frequently to prevent over compression of springs.

iii. Reinstall springs and measure installed length. Length must be 0.51 plus .00, -.03 inch.

e. If installed, visually inspect the slipjoint(s) for bulges beyond normal manufacturing irregularities of .03 inches and/or cracks. If any bulges and/or cracks are present, replace bulged or cracked slipjoint(s) (refer to Service Manual). See Figure 2.

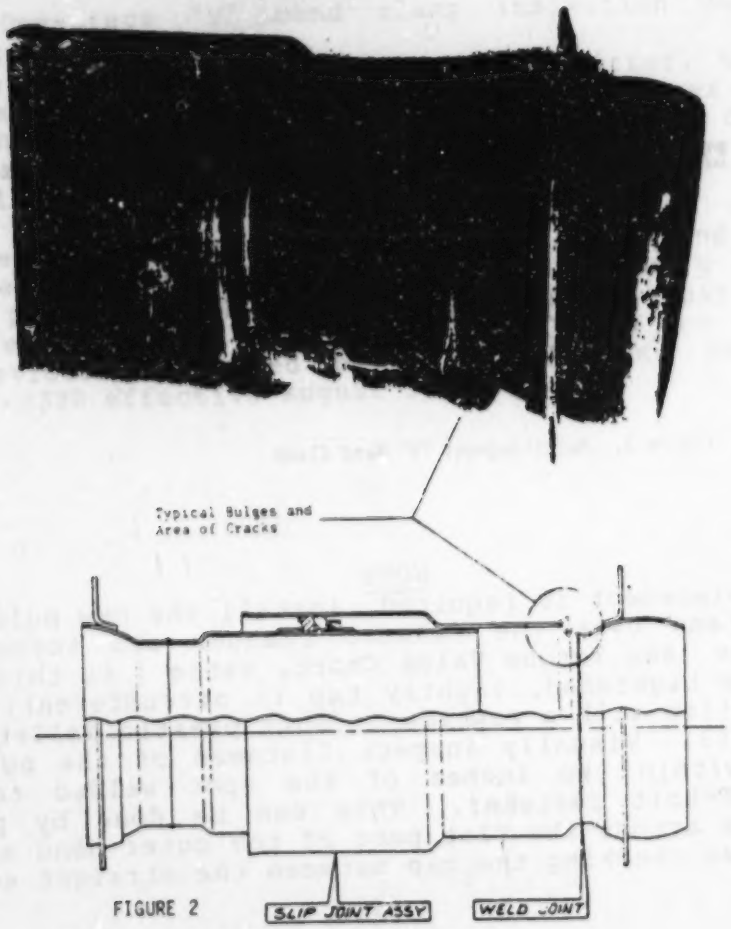

FIGURE 2

NOTE

This inspection was previously required on Model 421B airplanes, S/N 421B0001 through 421B0935 by AD 75-17-38 effective August 22, 1975.

f. Inspection of multi-segment "V" band clamp(s) (Between engine and turbocharger).

i. Using crocus cloth, clean the outer band of the multi-segment "V" band clamp(s). Pay particular attention to the spot weld area on the clamp(s).

ii. With clamp(s) properly torqued:

(1) Visually inspect the outer band in the area of the spot weld for cracks (see Figure 3). If cracks are found, replace the clamp(s) with new multi-segment "V" band clamp(s).

(2) Visually inspect the corner radii of clamp inner segments for cracks (See figure 3). This inspection requires careful use of artificial light and inspection mirrors.

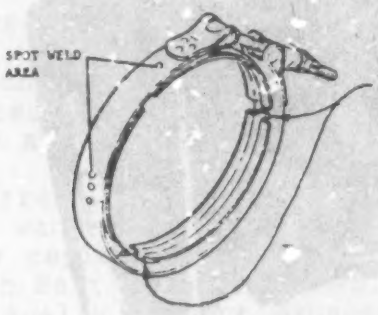

Figure 3. Multi-Segment "V" Band Clamp

NOTE

When replacement is required, install the new multi-segment "V" band clamp over the exhaust flanges and torque to the correct value (see Torque Value Chart, Table 1 to this AD). As the clamp is tightened, lightly tap it circumferentially in a radial direction with a rawhide or soft plastic mallet.

(3) Visually inspect flatness of the outer band, especially within two inches of the spot welded tabs which retain the T-bolt fastener. This can be done by placing a straight edge across the flat part of the outer band as shown in Figure 4, then checking the gap between the straight edge and

the outer band. This gap should be less than 0.062 inch. If deformation exceeds 0.062 inch limit, replace clamp(s) with new multi-segment clamp(s). (See Note preceding this step).

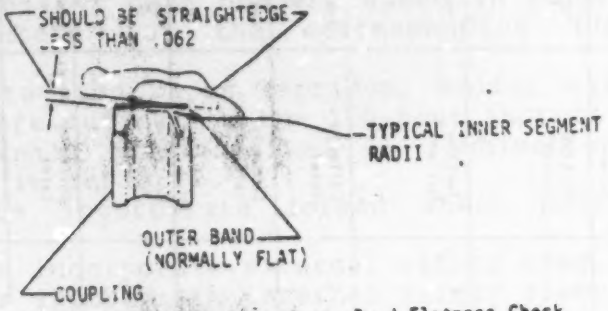

Figure 4. Multi-Segment "V" Band Clamp Outer Band Flatness Check

g. One-piece "V" band clamp inspection (Overboard exhaust to turbocharger).

Visually inspect with a light and mirror, the clamp surfaces adjacent to the intersection of the "V" apex and bolt clips, and the entire length of the "V" apex of the clamp for signs of cracks or fractures. If cracks or fractures are visible, replace the clamp. (See Figure 5).

NOTE

The above inspections, except for Paragraph e. and f., were previously required by AD 75-04-01 effective February 11, 1975. Inspections per Paragraph e. were previously required by AD 75-17-38 effective August 22, 1975. Inspections per Paragraph f. were previously required by AD 75-04-01 as amended by Amendment 39-2338 effective August 15, 1975.

TABLE 1

EXHAUST COUPLING APPLICABILITY CHART

	Coupling Part Number	Qty Per Acft	Torque In-Lbs	AIRCRAFT APPLICABILITY: T310P Q, R	320	320A B, C	320D E, F	340 340A	401/402 A, B	414	421 A, B	421 C	Location	Life Limited
Single Piece "V" Coupling	NH1000897-20	4	40 *					X		X			Collector (wye) Inlet	No
	NH1000897-30	2	40 **								X		Wastegate Inlet	No
	NH1000897-40 or V57A4234 or 41195AA423	2	40 *	X			X		X				Turbine Outlet	No
	NH1000897-50 or V57A5019 or 41195AA502	2	40 *					X		X	X	X	Turbine Outlet	No
Multi-Segment "V" Band Clamps	51394H250 (51134-2505 Gasket)	3	35		X								Collector Inlet	Yes
	B38037 Alternates: 4309AL 4309AF	3	35			X							Collector Inlet	Yes
	MVT64832 Alternates: 4309AL 4309F	3	35 *	X			X		X				Collector Inlet	Yes
	MVT68892-250 Alternate: 4301BT250	4	45					X		X			Collector (wye) Inlet	Yes
	4256AB200 Alternate MVT68892-200	2	45-50					X		X	X		Wastegate Inlet 340A)(414) & Wastegate Exit (421)	Yes
	4356AA300	2	70-90								X		Wastegate Inlet (421)	Yes

*Initial installation of single piece couplings must be made in strict adherence to the specified 40 inch-pounds torque value. However, periodic retorquing is required only if coupling shows torque values below 30 inch-pounds.

**The 24096-300-N gasket is not required at the exhaust wastegate inlet of 421, 421A, and 421B aircraft when the NH 1000897-30 Single-piece coupling is installed.

NOTES FOR TABLE II

GENERAL NOTES:

0850XXX and 5654XXX dash numbers shown in parentheses are earlier part numbers for the corresponding 9910XXX dash numbers.

Ball joint attaching parts (springs, bolts, nuts, washers and cotter pins) are subject to the 100-hour inspection instead of the 50-hour, only if installed in combination with the components listed in Table II.

1. Components incorporate formed sheet metal coupling flanges.
2. Components incorporate external safety ring.
3. Components incorporate internal safety sleeve.
4. Components require seals at coupling flange.
5. Alternate for MVT68892-250 and 4301BT250 couplings.
6. NH1000897-30 supersedes 4356AA300. Gasket P/N 24096-300-N is not required with the NH1000897-30 clamp.
7. Exhaust stack assemblies are sealed type, and the part numbers shown include risers for both cylinder banks and the crossover pipes.

TABLE II
100 HOUR INSPECTION EXHAUST SYSTEM COMPONENTS

Description & Part Number	Qty Per Eng	T310 P,Q,R	320 D,E,F	340	340A	401/402 A,B	414	421 A,B	421 C	Notes
Exhaust Stack Assy										
9910379-1 L.H. Eng (Inconel 601)	1 (LH)							X		7
9910379-2 R.H. Eng (Inconel 601)	1 (RH)							X		7
9910295-11 L.H. (5155184-1)	1								X	
9910295-12 R.H. (5155184-2)	1								X	
Aft Slip Joints										
9910314-1 (Inconel 601)	1							X		
Aft Elbows										
9910299-3 L.H. (5654551-5)	1			X	X		X			1 & 4
9910299-4 R.H. (5654551-6)	1			X	X		X			1 & 4
9910301-1 (0850712-39)	1 L.H.	X	X			X				1
9910301-3 (0850712-41)	1 R.H.	X	X			X				1
9910301-5 (0850712-40)	1 L.H.	X	X			X				1
9910379-19 (Inconel 601)	1 L.H.							X		
9910379-20 (Inconel 601)	1 R.H.							X		
Wye Collector Assy										
9910299-8 (Inconel 601)	1				X					1,3&4
9910301-4 (0850732-3)	1 L.H.	X	X			X				1 & 2
9910301-6 (0850732-18)	1 R.H.	X	X			X				1 & 2
9910341-1 (Inconel 601)	1			X						1,3&4
9910300-6 (5155100-1)	1								X	
Wastegate Inlet Elbow										
9910299-5 (5654551-4)	1				X		X			
Couplings (One Piece)										
Wastegate Inlet NH1000897-30	1							X		6
Wye Collector Inlet NH1000897-20	2			X	X		X			5

NOTES FOR TABLE III

GENERAL NOTES:

5155XXX, 5355XXX, and 5654XXX dash numbers shown in parenthese are earlier part numbers for the corresponding 9910XXX dash numbers.

Ball joint attaching parts (springs, bolts, nuts, washers and cotter pins) are exempt from mandatory inspections only if installed in combination with the components listed in Table III.

1. Exhaust stack assemblies are seal-less type, and part numbers shown are complete bank assemblies.

2. On aircraft prior to [illegible]9 Models, the initial replacement must include the aft elbow, wye collector assemblies and clamps since they are not interchangeable with earlier components.

3. Attach 5155156-5 Elbow to overboard stack using one each 5155157-1 Flex Joint and two each U84C200 SH Clamps.

II. Parts Replacement

A. Replacement of multi-segment "V" band clamps between aft engine cylinders and turbocharger inlet.

On all airplanes listed above within 50 hours time in service after February 11, 1975, for those clamps having more than 350 hours time in service as of that date or prior to 400 hours time in service for those clamps having less than 350 hours time in service as of that date, and at or prior to each additional 400 hours time in service thereafter, replace existing multi-segment "V" band exhaust system clamps located between aft engine cylinders and the turbocharger inlet (except for waste-gate to exhaust overboard pipe clamp on 421 airplanes) with new parts having Cessna part numbers in accordance with Attachment 4 to Cessna Service Letter ME-75-17 dated July 14, 1975, or later revisions. Use aircraft total time for clamp time in service unless aircraft maintenance records establish location and time in service on previously replaced clamps. See Figure 3 for multisegment type clamp configuration.

NOTE

The above clamp replacement was previously required by AD 75-04-01 effective February 11, 1975.

B. Replacement of multi-segment turbocharger to overboard tail pipe clamps.

Within 200 hours time in service after August 15, 1975, replace presently installed multi-segment type turbocharger to overboard tailpipe clamps on Model T310, 320, 401, 402, 340, 414 and 421 airplanes with the clamps specified below:

TABLE 111
EXEMPT EXHAUST SYSTEM COMPONENTS

Description & Part Number	Qty Per Eng	T310 P,Q,R	320 D,E,F	340	340A	401/402 A,B	414	421 A,B	421 C	Notes
Exhaust Stack Ass.										
9910295-13 L.H. (Inconel 601) or 9910295-9 L.H. (5155166-1)	1	X	X	X	X	X	X			1
9910295-14 R.H. (Inconel 601) or 9910295-10 R.H. (5155166-2)	1	X	X	X	X	X	X			1
9910295-15 (Inconel 601)	1								X	
9910295-16 (Inconel 601)	1								X	
Aft Slip Joints										
9910296-2 (Inconel 601) or 9910296-1 (5355105-4) (Stainless Steel)	2	X	X	X	X	X	X		X	
Aft Elbows										
(Inconel 601 matl, seamless style machined coupling flanges & internal safety sleeves)										
9910299-15 L.H.	1			X	X		X			2
9910299-16 R.H.	1			X	X		X			2
9910301-14	1 L.H.	X	X			X				2
9910301-16	1 L.H.	X	X			X				2
9910301-17	1 R.H.	X	X			X				2
Wye Collector Ass.										
(Inconel 601 matl & seamless style maintained coupling flanges)										
99102099-9	1				X		X			2
9910301-15	1 L.H.	X	X			X				2
9910301-18	1 R.H.	X	X			X				2
9910341-2	1			X						2
9910302-7	1								X	

Description & Part Number	Qty Per Eng	T310 P,Q,R	320 D,E,F	340	340A	401/402 A,B	414	421 A,B	421 C	Notes
Overboard Exhaust Stack Assembly										
0850711-33 & -31	1 L.H.	X	X			X				
0850711-34,-40,-42	1 R.H.	X	X			X				
9910299-1 (5654551-7)	1 L.H.			X	X		X			
9910299-2 (5654551-8)	1 R.H.			X	X		X			
5155156-3	1 L.H.							X		
5155156-4	1 R.H.							X		
9910300-1 (5155100-7)	1 L.H.								X	
9910300-2 (5155100-8)	1 R.H.								X	
Wastegate Inlet Elbow										
9910299-10	1				X		X			
Wastegate Overboard Pipe										
0850713-1	1	X	X			X				
5355100-64	1			X						
9910299-6 (5654551-3)	1				X		X			
Wastegate Outlet Elbow										
5155156-5	1							X		3
9910300-3 (5155100-20)	1								X	
Turbo Shield										
0850902-1	1	X	X			X				
5155154-3	1							X		
5354005-1	1			X	X		X			
Couplings (One Piece)										
Wye Collector Inlet NH1000897-60	2 L.H. (All) 2 R.H. (340,414) 1 R.H. (T310, 320 & 401/402)	X	X	X	X	X	X			2
Wastegate Inlet NH1000897-70	1				X		X			2
Turbine Outlet NH1000897-40	1	X	X			X				
Turbine Outlet NH1000897-50	1			X	X		X	X	X	

On T310 (all aircraft through S/N 310Q0600), 320D (all aircraft), 320E (all aircraft), 320F (all aircraft), 401 (all aircraft), and 402 (all aircraft through S/N 402B0300 series airplanes, replace the existing multisegment "V" band turbocharger to overboard tailpipe clamp with a new Part Number V57A4234 or 41195AA423 clamp. These new clamps are not "life limited".

On 340 (all aircraft through S/N 3400150, 414 (all aircraft through S/N 4140350), and 421 (all aircraft through 421B0396) series airplanes, replace the existing multi-segment "V" band turbocharger to overboard tailpipe clamp with a Part Number V57A5019 or 41195AA502 clamp. These new clamps are not "life limited".

NOTE

The above clamp replacement was previously required by AD 75-04-01 as amended by Amendment 39-2338 effective August 15, 1975.

III. Special Inspections

A. Unless previously accomplished, within 25 hours time in service after August 15, 1975, the inspection described below is to be conducted on the following aircraft on which the one-piece "V" band tail pipe clamps have been installed. (Clamps bearing a Cessna inspection stamp on the back side (a large C with a number) and installed on airplanes exempted from this inspection on Attachment No. 2 of Cessna Service Letter ME-75-17 have been inspected by the manufacturer and comply with this requirement).

T310 (All aircraft S/N 310P0001 through 310R0275)
320D, 320E, 320F (All aircraft)
340 (All aircraft through S/N 3400550)
401 (All aircraft)
402 (All aircraft S/N 4020001 through 402B0912)
414 (All aircraft through S/N 4140648)
421 (All aircraft S/N 4210001 through 421B0927)

1. Remove upper cowling from LH and RH engine.

a. (Aircraft Turbo 310, 320, 401, 402, and 421 series equipped with metal heat shield). Detach heat shield from turbocharger turbine housing by cutting safety wire and removing hinge pin located at top of shield assembly securing shield halves together.

b. The heat shield does not need to be removed on 320, 340 or 414 and any aircraft equipped with insulation blanket shield.

2. Clean and visually inspect with a light and mirror, the clamp surfaces adjacent to the intersection of the "V" apex and bolt clips (see Figure 5) for signs of cracks or fractures. If cracks or fractures are visible, replace clamp. (This step allows inspection of the clamp under tension).

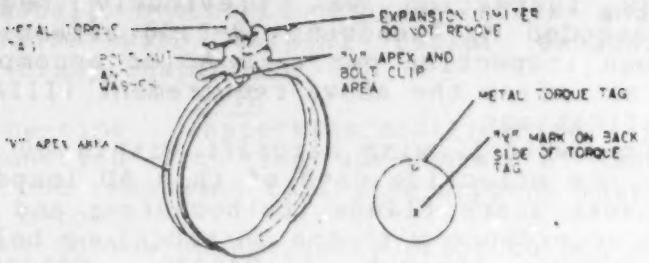

Figure 5. One-Piece "V" Band Type Clamp

3. Remove nut, washer, and bolt from clamp, unseat coupling, and slide clamp down exhaust stack to gain adequate visibility.

CAUTION: DO NOT REMOVE EXPANSION LIMITER.

4. Visually inspect for cracks and fractures the entire length of the "V" apex of the clamp (see Figure 5), and pay particular attention to the surfaces adjacent to the intersection of the "V" apex and bolt clips.

NOTE: The use of artificial light and at least a 10-power magnifying glass is necessary to detect minute cracks or signs of incipient failure.

Do not use dye penetrant inspection procedures since noncritical metal forming folds yield misleading failure indications.

5. If clamp is found to be defective, replace clamp.

6. If clamp has no defects, steel stamp or using a vibrating pencil, mark an "X" on the back side of metal torque tag.

7. Reinstall clamp on turbocharger turbine housing and overboard exhaust stack and install bolt, washer and nut. Torque nut to 40 inch-pounds.

CAUTION: DO NOT EXCEED NUT TORQUE BY MORE THAN 5 INCH-POUNDS.

8. Resecure heat shield on turbocharger turbine housing when detached, by aligning shield hinge halves and reinstalling pin previously removed. Secure lower halves of shield using two pieces of .032 monel safety wire twisted together, through opposing eyelets of shield halves, draw shield snug on turbine housing, and safety by twisting end of wire together. Insure heat shield is snug on housing.

9. Reinstall upper cowling on LH and RH engine.

NOTE

This inspection was previously required by AD 75-04-01 as amended by Amendment 39-2338 effective August 15, 1975. Previous inspection per this AD or accomplished by the manufacturer satisfies the above requirement (IIIA).

IV. Modifications

A. On the following aircraft within 50 hours time in service after the effective date of this AD inspect/modify the overboard exhaust stack flange (turbocharger and exhaust stack interface) in accordance with the instructions below.

T310P0001 through T310R0230, T310R0232 through T310R0254, T310R0256, T310R0257, T310R0259 through T310R0263, T310R0265, T310R0266, T310R0268 through T310R0272, T310R0274, T310R0275, 320D0001 through 320F0045, 3400001 through 3400550, 4010001 through 401B0221, 4020001 through 402B0630, 402B0632 through 402B0909, 402B0911, 402B0912, 4140001 through 4140643, 4140645 through 4140648, 4210001 through 421B0889, 421B0891 through 421B0918, 421B0921, 421B0922, 421B0924, 421B0926 and 421B0927.

1. Remove any existing overboard support clamps, and remove overboard exhaust stack.

NOTE

Take precautions to prevent collection of any dirt or foreign particles in opening of turbocharger turbine housing during modification.

2. Visually inspect the mating surfaces of flanges of overboard exhaust stack and turbochargers for uniform contact over their entire perimeter.

3. If such contact is not evident, remove excess material (shaded area) of overboard exhaust stack as required, and as shown typical in Figure 6, by grinding, to allow mating surfaces of flanges of overboard exhaust stack and turbine housing to have uniform contact over their entire perimeter. Exercise care to prevent damage to flange surface of overboard exhaust stack when grinding off excess material.

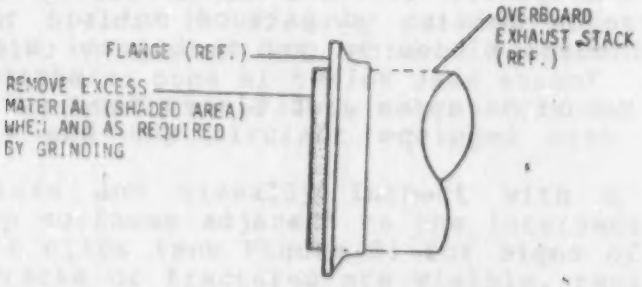

Figure 6.

4. Reinstall overboard exhaust stack and secure clamps in accordance with turbine outlet exhaust stack one-piece "V" band clamp inspection.

NOTE

This one-time inspection/modification may be performed in conjunction with the one-piece "V" bank clamp 25-hour inspection and redundant tail pipe support installation required by IV. B. below.

B. On the following aircraft, prior to but not later than December 31, 1975, install redundant tail pipe support clamps and brackets in accordance with Cessna Service kits specified below.

T310 (All aircraft through S/N 310Q0600)
320D0001 through 320F0045
3400001 through 3400150
4010001 through 401B0300
4020001 through 402B0300
4140001 through 4140350
4210001 through 421B0300

1. Kit Number and Applicability

a. SK402-31 - Turbo 310P0001 through Turbo 310Q0600
320D0001 through 320F0045
4010001 through 401B0300
4020001 through 402B0300

b. SK414-9 - 3400001 through 3400150
4140001 through 4140350

c. SK421-67 - 4210001 through 421B0300

V. Any equivalent method of compliance with this AD must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Central Region.

VI. The time in service between the repetitive inspections required herein may be adjusted up to plus 10 per cent of any specified inspection interval required by this AD to facilitate accomplishing these inspections concurrent with other scheduled maintenance on the airplane.

Cessna Service Letter ME75-17 dated July 14, 1975, Cessna Service Letter ME77-1 dated January 24, 1977, and Supplement 2 thereto dated June 26, 1978, and Cessna Multiengine Service Information Letter ME79-32 dated August 17, 1979, pertain to this subject.

Amendment 39-2419 supersedes AD 75-04-01, Amendments 39-2083, 39-2130, and 39-2338, and AD 75-17-38, Amendment 39-2341.

Amendment 39-2419 became effective November 17, 1975.
Amendment 39-2587 became effective August 12, 1976.
Amendment 39-2730 became effective February 17, 1977.

Amendment 39-3298 became effective September 25, 1978.
Amendment 39-3609 became effective November 13, 1979.
This amendment, 39-5451, becomes effective on November 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles D. Riddle, Wichita Aircraft Certification Office, Federal Aviation Administration, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4427.

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86-23-02 PILATUS BRITTEN-NORMAN LIMITED: Amendment 39-5452. Applies to Pilatus Britten-Norman Limited (PBN) Models BN-2 and BN-2A Islander airplanes certificated in any category.

Compliance: Required within the next 100 hours time-in-service after the effective date of this AD, unless already accomplished by incorporation of Modification Nb/M/990 as noted in Britten-Norman Service Bulletin (S/B) No. BN.2/SB.113, Issue 2, dated April 14, 1986.

To prevent undesireable oscillations, flutter or control system wear, accomplish the following:

(a) Shake the elevator and aurally (by ear) determine if the mass balance weight is loose. Examine for any sign of movement, i.e., rust marks or grey lead deposits. In cases of uncertainty drill a small hole (5/32 in. dia) in the lower case and insert a probe to feel for lead movement. Alternatively dismantle the trimming weight assembly by removal of the blind riveted end covers and by removing the balance discs (note position and sequence for re-assembly).

(1) If a loose balance weight is found prior to further flight, accomplish the following:

(i) Remove the elevator;

(ii) Drill out rivets, remove the trim weight assembly and detach the complete case from the tip rib.

(iii) Lift out the profiled lead block.

(iv) Clean the case internally to remove any corrosion by the use of emery cloth. Keep clean; do not wipe with oily or greasy rag or bond of adhesive will be impared.

(v) Clean the lead block to obtain a corrosion free face to the steel case and permit free fit into the case with an approximate 0.020 in. to 0.030 in. clearance.

(vi) Prepare and apply a quantity of 3M's EC2216 epoxy adhesive to the case and press in the weight to obtain a layer of adhesive all around to fill the gap between the case and lead. Allow to cure approximately 12 hours at 60 degrees to 65 degrees Fahrenheit and re-assemble to the elevator structor.

(vii) Re-assemble trim weights and check elevator balance, adjust trim weights if necessary to restore CAA-UK approved manufacturer's correct balance.

NOTE: EC2216 may be substituted by similar "low flow" epoxy adhesive provided that the gap can be adequately sealed.

(2) If no defect is found, reassemble and return the airplane to service.

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(b) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where this AD can be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium.

All persons affected by this directive may obtain copies of the documents, referred to herein upon request to Pilatus Britten-Norman Limited, Bembridge, Isle of Wight, England; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Ted Ebina, Aircraft Certification Staff, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, Brussels, Belgium; Telephone 513.38.30; or Mr. Harvey A. Chimerine, FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

86-23-05 CONSOLIDATED AERONAUTICS INCORPORATED: Amendment 39-5461. Applies to Consolidated Aeronautics Incorporated, Lake Model 250 Airplanes, Serial Numbers 2 through 17, equipped with fuel shutoff valve mounting plate part number 3-6572-17, certificated in any category.

Compliance: Required within the next 100 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent the possible contact of the fuel shutoff valve handle hardware and the cabin rear upholstery panel, accomplish the following:

(a) Modify the fuel shutoff valve mounting plate in accordance with instructions in Lake Aircraft Division Consolidated Aeronautics Incorporated Service Bulletin No. B-66 dated May 31, 1985.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Federal Aviation Administration, Boston Aircraft Certification Office, ANE-150, 12 New England Executive Park, Burlington, Massachusetts 01803.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Lake Aircraft, Laconia Airport, Laconia, New Hampshire 03646; or Federal Aviation Administration, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 17, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Wayne Gaulzetti, ANE-153, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803; Telephone 617-273-7102.

86-23-07 BRITISH AEROSPACE: Amendment 39-5464. Applies to Model B.121 Series I, II, and III (all serial numbers) airplanes certificated in any category.

Compliance: Required initially within 50 hours time-in-service (TIS) for airplanes having or upon accumulating 2,450 hours or more TIS, and thereafter at intervals of 50 hours TIS, unless already accomplished.

To assure the integrity of the vertical fin/fuselage attachment structure, accomplish the following:

(a) Visually inspect for cracks in the following areas:

(1) Center Angle, Part Number (P/N) BE-10-10085 in accordance with paragraph 3. "ACTION" subparagraph (c) of British Aerospace (BAe) Service Bulletin (S/B) No. B121/86, dated March 29, 1984.

(i) If cracks are found that equal or exceed the conditions shown in paragraph 3. "ACTION" subparagraph (c) of BAe S/B No. B121/86, prior to further flight, repair in accordance with repair instructions obtained from the manufacturer, British Aerospace, and approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium (hereinafter referred to as "Manager, AEU-100").

(ii) If no cracks are found or if cracks do not exceed the limits shown in paragraph 3. "ACTION" subparagraph (d) of BAe S/B No. B121/86, repeat the inspection at intervals not exceeding 50 hours TIS.

(2) The underside of Diaphragm Decking upper, P/N BE-10-10155/1, in accordance with paragraph 3. "ACTION" subparagraph (d) of BAe S/B No. B121/86, dated March 29, 1984.

(i) If cracks are found, prior to further flight, repair in accordance with repair instructions obtained from the manufacturer, British Aerospace, and approved by the Manager, AEU-100.

(ii) If no cracks are found, repeat the inspection at intervals not exceeding 50 hours TIS.

(3) The heel of the side skin attachment flange (left and right) adjacent to the tailplane front spar attachment bolts in accordance with paragraph 3. "ACTION" subparagraph (e) of BAe S/B No. B121/86, dated March 29, 1984.

(i) If cracks are found, prior to further flight, repair in accordance with repair instructions obtained from the manufacturer, British Aerospace, and approved by the Manager, AEU-100.

(ii) If no cracks are found, repeat the inspection at intervals not exceeding 50 hours TIS.

(b) Extension or elimination of the repetitive inspections specified in this AD may be included as part of the FAA-approved repair obtained in accordance with paragraphs (a)(1)(i), (a)(2)(i), and (a)(3)(i) of this AD.

(c) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where this AD can by accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium.

All persons affected by this directive may obtain a copy of the document referred to herein upon request to British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041; Telephone (703) 435-9100, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 18, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. T. Ebina, Brussels Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium; Telephone 513.38.30; or Mr. John P. Dow, Sr., FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

ALLISON
Airworthiness Directive
Final Copy of Letter
VOLUME I

86-20-13 ALLISON GAS TURBINE DIVISION, GENERAL MOTORS CORP. (ALLISON, formerly DETROIT DIESEL ALLISON): Amendment 39-5465. Applies to Allison Model 250-C28 and -C30 Series engines installed in, but not limited to, Bell Model 206L-1, Messerschmitt-Boelkow-Blohm GmbH BO 105 LS A-1, Sikorsky Model S-76A, Bell Model 206L-1, modified to incorporate the Allison 250-C30 engine, Bell Model 206L-3, and McDonnell Douglas Helicopter Company (Hughes) Model 369F and 369FF aircraft.

The following engine models and turbine serial numbers are affected:

ENGINE MODEL	TURBINE SERIAL NUMBER
250-C28B	CAT 70001 thru 70802 and 70804
250-C28C	CAT 28001 thru 28046
250-C30 Series	CAT 90001 thru 95436 and 95438

EXCEPT existing Model 250-C28 and 250-C30 Series engines which have incorporated Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, or the following FAA approved equivalents:

Allison Message THO-2639W-RFR-85 dated February 7, 1985
Allison C28 Overhaul Manual Temporary Revision 72-7, Page 12 dated January 22, 1986
Allison C30 Overhaul Manual Revision dated July 1, 1985, Section 72-50-00, Paragraph F(7), page 524
Allison Commercial Service Letter 250-C28/C30 CSL-2071/3073 dated June 3, 1985

Compliance is required as indicated unless already accomplished.

To prevent excessive wear and/or fretting damage on the external splines of the turbine spline adapter or the aft splines of the turbine-to-compressor coupling shaft, which can progress to a disconnect and subsequent overspeed gas generator turbine failure/uncontained failure, accomplish the following:

(a) Within the next five hours time-in-service after the effective date of this AD, but not later than December 10, 1986, for inservice engines, inspect the gas generator turbine spline adapter locknut torque in accordance with Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, or FAA approved equivalent.

(b) Before initial flight, for uninstalled affected turbine assemblies, inspect the gas generator turbine spline adapter locknut torque in accordance with Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, or FAA approved equivalent.

NOTE: The compliance requirements of this AD were previously published in Allison Commercial Service Letter 250-C28/C30 CSL-A-2084/3087, Revision 1, dated September 29, 1986, FAA approved by the Manager, Chicago Aircraft Certification Office.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated october 1, 1985, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552 (a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Allison Gas Turbine Division, General Motors Corp., P.O. Box 420, Indianapolis, Indiana 46206-0420. This document also may be examined at the Office of Regional Counsel, FAA, ATTN: Rules Docket No. 86-ANE-41, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective November 24, 1986, as to all persons except those persons to whom it was made immediately effective by Priority Letter AD No. 86-20-13, issued October 8, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Royace H. Prather, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone 312-694-7132.

GREAT LAKES
Airworthiness Directive
Revision
VOLUME I

78-26-10 R1 GREAT LAKES: Amendment 39-3384 as amended by Amendment 39-5460. Applies to Models 2T-1A-1 and 2T-1A-2 airplanes.

COMPLIANCE: Required as indicated unless already accomplished.

To preclude contamination of cockpit heater air with carbon monoxide, accomplish the following:

A) Within the next 25 hours time-in-service after the effective date of this AD:

1. Determine if the airplane is equipped with a P/N 50146 cockpit heater system and, if not, make an entry in the airplane's maintenance record that the airplane complies with Paragraph A)1 and that further compliance with this AD is not required. This determination and maintenance record entry may be made by the owner or holder of a valid pilot certificate.

2. If the airplane is equipped with a P/N 50146 cockpit heater system, prior to further flight, install a revision in the walk around inspection (Section II C. 2) of the Flight Manual adding an inspection of the exhaust system hanger (Figure 1 of this AD).

3. If the airplane is equipped with a P/N 50146 cockpit heater system, prior to further flight, and within each 25 hours time-in-service thereafter:

a) Remove the cowl to gain access to the engine installation.

b) Disconnect the two cockpit air heater ducts from the heater shroud and remove the shroud.

c) Visually inspect the support plates of the heat exchanger at both ends for cracks between the five tube cluster.

d) If no cracks are found, return the heat exchanger to service.

e) If cracks are found, either replace the heat exchanger system with an airworthy part or, in the alternative, comply with Paragraph B) of this AD.

B) Remove the optional heat exchanger system and:

1) Install P/N 50126-1 stack assembly on all aircraft and P/N 50172-1 shield on aircraft equipped with IO-360-BIF6 and AEIO-360-BIG6 engines using QS100-M32W or equivalent clamps.

2) Block existing cockpit heat control valve in closed position by safety wiring control arm to adjacent aircraft structure.

3) Block the cockpit air supply opening in the left vertical engine cooling baffle per AC 43.13 1 and 2.

4) Remove Aircraft Flight Manual Revision specified in Paragraph A)2 of this AD (if installed).

C) The actions and inspections specified in paragraphs A)2. and A)3. of this AD may be discontinued upon either removal of the P/N 50146 cockpit heater system per paragraph B) of this AD, or replacement of the P/N 50146 cockpit heater system with a different FAA approved cockpit heater system.

D) Any equivalent method of compliance with this AD must be approved by the Manager, Boston Aircraft Certification Office, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Great Lakes Aircraft Company (GLAC) Service Bulletin No. 9, dated November 17, 1978, or later revisions, pertain to portions of this subject.

This amendment revises AD 78-26-10, Amendment 39-3384, which became effective January 4, 1979.

This amendment, 39-5460, becomes effective on December 17, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Terry Fahr, ANE-153, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803; Telephone (617) 273-7103.

FIGURE 1

AIRPLANE FLIGHT MANUAL REVISION

(AD 78-26-10 requires this revision to remain in the below designated airplane flight manual when the airplane is equipped with the optional P/N 50146 cockpit heater system.

MODEL _____ N _____ S/N _____

In addition to the presently specified preflight procedures, prior to each flight:

1. Inspect the left engine exnaust tail pipe hanger for deformation or failure.

2. If found failed, the hanger must be repaired prior to further flight.

SIKORSKY
Airworthiness Directive
Revision
VOLUME I

82-25-01 R1 SIKORSKY: Amendment 39-4508, as amended by Amendment 39-5456. Applies to Model S-76A helicopters having serial numbers prior to 760308, certificated in all categories.

For helicopters with main left and right landing gear positioning rod ends with 1,500 or more hours' time in service on the effective date of this AD, compliance is required within the next 25 hours' time in service after the effective date of this AD, unless already accomplished within the last 75 hours' time in service, and thereafter at intervals not to exceed 100 hours' time in service from the last inspection.

For helicopters with main left and right landing gear positioning rod ends with less than 1,500 hours' time in service after the effective date of this AD, compliance is required before the accumulation of 1,525 hours' time in service and thereafter at intervals not to exceed 100 hours' time in service from the last inspection.

NOTE: If the main left and right landing gear positioning rod end hours' time in service cannot be determined, an estimate of the hours' time in service based upon the past operation of the part may be made and submitted for approval to the Manager, Boston Aircraft Certification Branch, FAA New England Region, Aircraft Certification Division, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (617) 273-7118.

To preclude possible failure of the S-76 main left and right landing gear positioning rod end fittings, Part Number KR10MEAK, inspect for cracks and replace the rod end fittings as required in accordance with applicable portions of paragraph E, "Accomplishment Instructions" of Sikorsky Alert Service Bulletin 76-32-10, dated October 8, 1982, as modified by Sikorsky message CST-SPT-82-654, dated October 14, 1982, or as specified in an FAA approved equivalent instruction.

Within the next 300 hours' time in service but no later than 6 months after the effective date of this amendment, unless already accomplished, replace rod end fitting, P/N KR10MEAK and mating parts with rod end fitting P/N 1945E235 and all improved parts contained in Sikorsky's main landing gear structural improvement kit P/N 76070-25004-011 in accordance with Sikorsky CSN 76-134 dated May 6, 1983, or CSN 76-134A dated January 10, 1984, paragraphs A through D. Revise the aircraft weight and balance.

NOTE: Installation of the P/N 76070-25004-011 main landing gear structural improvement kit terminates the inspection requirements of this AD. Paragraph B(1)(e) of each CSN

requires reidentification of a modified bellcrank to P/N 76250-02104-042.

Service lives and mandatory inspection requirements for specific parts contained in the landing gear structural improvement kit are contained in the Airworthiness Limitations Section, Chapter 4 of the Revised Sikorsky S-76A Maintenance Manual No. SA 4047-76-2-1 (replacement serialized parts) and are also stated in Amendment 39-5298, AD 86-09-11 (replacement non-serialized parts).

Alternate inspections, adjustment of the inspection interval, or other actions which provide an equivalent level of safety must be approved by the Manager, Boston Aircraft Certification Branch, FAA New England Region, Aircraft Certification Division, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (617) 273-7118.

This procedure shall be done in accordance with prescribed parts of Sikorsky CSN 76-134, dated May 6, 1983, or CSN 76-134A, dated January 10, 1984. This incorporation by reference was approved by the Director of the FEDERAL REGISTER in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from Sikorsky Aircraft, Division of United Technologies Corporation, Attention: Commercial Product Support Department, 6900 Main Street, Stratford, Connecticut 06601-1381. Copies may be inspected at Office of Regional Counsel, FAA, Southwest Region, 4400 Blue Mound Road, Fort Worth, Texas, or the office of the FEDERAL REGISTER, 1100 L Street, NW., Room 8401, Washington, D.C.

This amendment amends Amendment 39-4508, AD 82-25-01 which became effective December 6, 1982.

This amendment, 39-5456, becomes effective on December 1, 1986.

FOR FURTHER INFORMATION CONTACT;

Donald F. Thompson, Airframe Branch, ANE-152, Boston Aircraft Certification Office, New England Region, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803, Telephone (617) 273-7113.

MOONEY
Airworthiness Directive
Correction
VOLUME I

86-19-10 MOONEY AIRCRAFT CORPORATION: Amendment 39-5408. Applies to Models M20 and M20A (all serial numbers) airplanes certificated in any category.

Compliance: As indicated in the body of the AD.

To preclude structural failure due to deteriorated wooden structures, accomplish the following:

(a) Within the next 30 days after the effective date of this AD, if AD 76-15-01 has not been previously complied with, or within 12 calendar months after the last 12 month repetitive inspection required by AD 76-15-01, whichever is applicable, and each 12 months thereafter accomplish the wood structure proof load tests, modifications and visual inspections specified in paragraphs (d), (e), (f) and (g) of this AD and repair all discrepancies found prior to further flight.

(b) The empennage proof load tests and modification and inspection requirements of paragraphs (a), (d) and (e) are not required on airplanes modified with an all-metal empennage installed per Mooney Service Bulletin (S/B) Kit No. M20-170-1.

(c) Within the sixth month after accomplishment of the inspections required by paragraph (a) of this AD, or within 12 calendar months after the last six month interval repetitive inspection required by AD 76-15-01 and each 12 months thereafter, whichever is applicable, accomplish the empennage and wing inspections specified in Parts IIA, III8, III9, and III10 of Mooney S/B No. M20-170A dated February 24, 1969, and repair all discrepancies found prior to further flight.

(d) On airplanes not equipped with an all-metal empennage, proof load test the empennage and supporting structure as follows:

(1) Apply proof loads to the vertical fin spar as shown in Figure 1 of this AD. Apply the load to the right side and then to the left side. Apply proof loads to the rudder hinges of the fin as shown in Figure 3 of this AD. Apply hinge proof loads to the right side and then to the left side.

(2) After the initial proof load testing in paragraph (d)(1) of this AD, at intervals not to exceed one year, apply the proof loads to the vertical fin spar and rudder hinges as shown in Figures 1 and 3 of this AD. Apply the loads in one direction only during each 12 month inspection cycle by applying the loads to the right side at the end of the first interval and alternating load direction similarly thereafter.

(3) If the empennage fails during the proof loading specified in paragraphs (d)(1) or (d)(2) of this AD, prior to further flight, replace the wood empennage with an all-metal empennage in accordance with the instructions contained in Mooney S/B Kit No. M20-170-1. The empennage is considered to

have failed when complete separation of the vertical fin from the horizontal stabilizer occurs, fin spar cracks occur, the hinge separates or loosens from the fin, other wood failures occur, glue joint failures occur, or permanent deformation occurs as shown in Figure 2 of this AD.

(e) Modify and inspect the wood empennage as follows:

(1) If fin failure did not occur during the proof load application specified in paragraphs (d)(1) and (d)(2) of this AD, prior to further flight, modify the vertical fin and visually inspect the empennage as follows:

(i) Modify the vertical fin by adding inspection access holes and reinforcing straps in accordance with Parts IB and IC of Mooney S/B No. M20-170A dated February 24, 1969, unless previously accomplished.

(ii) Visually, and if necessary using the methods in paragraph (h) of this AD, inspect the empennage in accordance with S/B No. M20-170A dated February 24, 1969, Parts IA and II and repair any discrepancies found prior to further flight.

(f) Prepare the wing and wing carry-thru structure for inspection in accordance with instructions in Part III of Mooney S/B No. M20-170A dated February 24, 1969, and as follows:

(1) Remove the wing to fuselage fairings and fillets.

(2) Remove all the wing and center section access doors and panels. (Refer to Figure 5 of Mooney Service Bulletin (S/B) No. M20-170A).

(3) Remove the sealing tape at the wing-fuselage joint.

(4) Remove the rear seat and auxiliary fuel tank for access to the wing center section.

(5) Remove flap gap metal seal strips from the top trailing edge of both wings.

(6) Disconnect and remove the wing flaps and ailerons.

(g) Visually, and if necessary using the methods in paragraph (h) of this AD, inspect the wing and wing carry-thru structure and repair any discrepancies found prior to further flight in accordance with instructions in Part III of Mooney S/B No. M20-170A dated February 24, 1969, and as follows:

(1) Inspect the areas around wing to fuselage attach fittings for evidence of deterioration or joint separation.

(2) Inspect the flap and aileron attach bolts, bearings, bushings, and hinge fitting attach bolts and bushings for evidence of rust, corrosion, and wear. See Figure 6 in Mooney S/B No. M20-170A dated February 24, 1969.

(3) Visually inspect the wood end-grain surrounding bolt holes for evidence of rust, discoloration, deterioration, and evidence of moisture accumulation at the trailing edges of the wings.

(4) Visually inspect the rear stub spar for glue bond separations, water stains, and wood rot. If these inspections identify any questionable areas in which possible deterioration may exist in the concealed spar caps, prior to further flight, determine the condition of the internal spruce core in accordance with paragraph (h) of this AD. See Note 1 of this AD.

(5) Visually inspect all accessible areas of the main spar from the fuselage center line (BL 0.0) out to left and right wing Station 59.25 for glue bond separations, water stains, and wood rot. If these inspections identify any questionable areas in which possible deterioration may exist in the concealed spruce spar prior to further flight determine the condition of the internal spruce core in accordance with paragraph (h) of this AD. See Note 1 of this AD.

(6) Visually inspect the accessible interior of the wing using a flashlight and mirror, for wood decay, water and/or wood stains, pooled dust/dirt which may indicate evidence of previous standing water, rust or corrosion on metallic surfaces, wood discoloration, and detectable moisture. See Note 1 of this AD.

(7) Inspect the upper and lower exterior surfaces of the wing, including the wheel well, for the following: See Note 1 of this AD.

(i) Indications that the wood immediately below the fabric is soft or contains excessive moisture (i.e., swollen). Soft wood may be located and/or confirmed by depressing the wing's surface in the vicinity of the area in question with a rounded, blunt instrument and comparing its hardness to that of good wood. Note that any areas being compared must have identical substructure.

(ii) Indications that the fabric/paint is delaminating from the wood surface (bubbles, discoloration, boils, soft spots and other surface flaws).

(iii) Cracks or breaks in the paint which could allow water to enter the wing.

(iv) Any other exterior damage which would allow water to penetrate the fabric/paint barrier and enter the wood.

(8) Visually inspect the rear spar in all areas it is accessible from the fuselage center line out to the left and right wing tips for wood rot, water stains in wood and glue joint separation. Pay special attention to the area around all flap and aileron hinge supports, including the support ribs, lower wing skins, spars and closeout strips at wing stations 22.0 and 147.0 (flap inboard and outboard hinge support ribs).

(9) Inspect all drain holes on the bottom of the wing to ensure they are completely open and free of burrs and/or pieces of fabric.

(10) Visually inspect the fuel scupper areas of the main and auxiliary fuel tank fillers for sealant condition between scupper boxes and wing structure.

(11) Check main and auxiliary fuel tank scupper drains to be sure they are not clogged.

(12) Visually inspect aileron and flap fabric covering under metal gap strips in accordance with Mooney S/B No. M20-29 dated December 4, 1957.

(13) Visually inspect the areas of the upper wing surface trailing edge under flap gap metal seals for fabric or wood deterioration. Be alert for deteriorated wood around screw holes used in holding the metal strip to the wing.

(14) Visually inspect, if necessary repair, and refinish the main landing gear wheel well area in accordance with Mooney S/B No. M20-67 dated February 15, 1960.

(h) If during any inspections specified in paragraphs (e) and (g) of this AD there are visual indications of wood deterioration below the surface, prior to further flight, inspect and test these areas to assure their structural integrity by using one or more of the following:

(1) Test for soft/decayed wood with a sharp probe such as an awl or sharp pocket knife.

(2) Disassemble the structure as necessary to gain access to the area and perform a detailed visual inspection.

(3) Tap the wood area in question with a small rounded blunt instrument approximately the size of a small pocket knife. Compare the sound to similar areas that are not suspect. Assuming similar understructure, an abrupt change in sound to a less or non-resilient sound may indicate decay below the surface.

(i) If significant structural repair of the wing main spar, rear spar or stub spar or any area of the wood empennage is found necessary as a result of the inspections and tests of the preceding paragraphs, prior to initiation of the repair, contact Mooney Aircraft Corporation, Post Office Box 72, Kerrville, Texas 78028; Telephone (512) 896-6000, or the local Mooney Aircraft Repair Center, or FAA Airplane Certification Office, ASW-150, FAA, Southwest Region, Post Office Box 1689, Fort Worth, Texas 76101; Telephone (817) 624-5164, to arrange for engineering review and approval of the repair design.

(j) Within 30 days after accomplishment of the first inspection required by paragraph (a) of this AD, the appropriately rated airframe mechanic who performed the inspection shall fill out and sign the one time reporting form included as Attachment 1 to this AD and mail it to the following address: DOT/FAA, Airplane Certification Branch, ASW-150, Post Office Box 1689, Fort Worth, Texas 76101. (Reporting approved by the Office of Management and Budget (OMB) under OMB No. 2120-0056).

NOTE: This is a one time only reporting requirement.

(k) An equivalent method of compliance with this AD may be used if approved by the Manager, Airplane Certification Branch, ASW-150, FAA, Southwest Region, Post Office Box 1689, Fort Worth, Texas 76101.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Mooney Aircraft Corporation, Post Office Box 72, Kerrville, Texas 78028, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

Note 1: The surface features described in the paragraphs of this AD may be accentuated by illuminating the surface with a light source at a shallow angle. The following technique may be used by an experienced inspector to detect soft and/or decayed wood in the wing spars. Tap the wing directly above and below the spars with a small rounded blunt instrument approximately the size of a small pocket knife. Start at the outboard end and move inboard, listening to the sound generated by the wing.

The sound quality will change slowly. If the change is abrupt or if the sound is not resilient, the wood directly below the surface may be deteriorated due to decay.

Note 2: Shelter - Owners and operators are encouraged to shelter the airplanes, to keep the airplane out of rain storms, and to protect the fabric surface from unnecessary exposure to the deteriorating effects of the sun.

Note 3: Maintenance - Owners and operators are encouraged to be selective in who performs maintenance on their airplane. Only personnel extremely experienced in wood airplane inspection and repair should be contacted.

Note 4: The inspection intervals required by this AD differ from the inspection intervals shown in Mooney Service Bulletin No. M20-170A. The intervals in this AD are the same as AD 76-15-01 which this AD supersedes.

Note 5: Repairs to primary and secondary structure may be accomplished with reference to:

(a) FAA Advisory Circular No. 43-13-1A: Acceptable Methods, Techniques and Practices Aircraft Inspection and Repair, Department of Transportation, Federal Aviation Agency 1972; available through the Government Printing Office.

(b) ANC-18: Design of Wood Aircraft Structures, Chapter 4, Munitions Board Aircraft Committee June 1951.

(c) Mooney Aircraft Corporation Engineering Drawings; the specific drawings required will depend on the affected structural components.

(d) Mooney Service Bulletin No. M20-170A dated February 24, 1969.

Note 6: Design of major repairs to primary wood structure (main and stub spars and ribs receiving loads such as landing gear loads or loads related to attachment of moveable control surfaces to fixed surfaces or attachment of fixed surfaces to the fuselage) should be reviewed and approved by Mooney Aircraft Corporation or an FAA Designated Engineering Representative having appropriate ratings or by FAA Aircraft Certification Division engineers. This is not intended to apply to those situations wherein a deteriorated part is replaced with an entire new part of like design.

This AD supersedes AD 76-15-01, Amendment 39-2673.

This amendment becomes effective October 6, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Garry Sills, Airplane Certification Branch, ASW-150, FAA, Post Office Box 1689, Fort Worth, Texas 76101; Telephone (817) 624-5164.

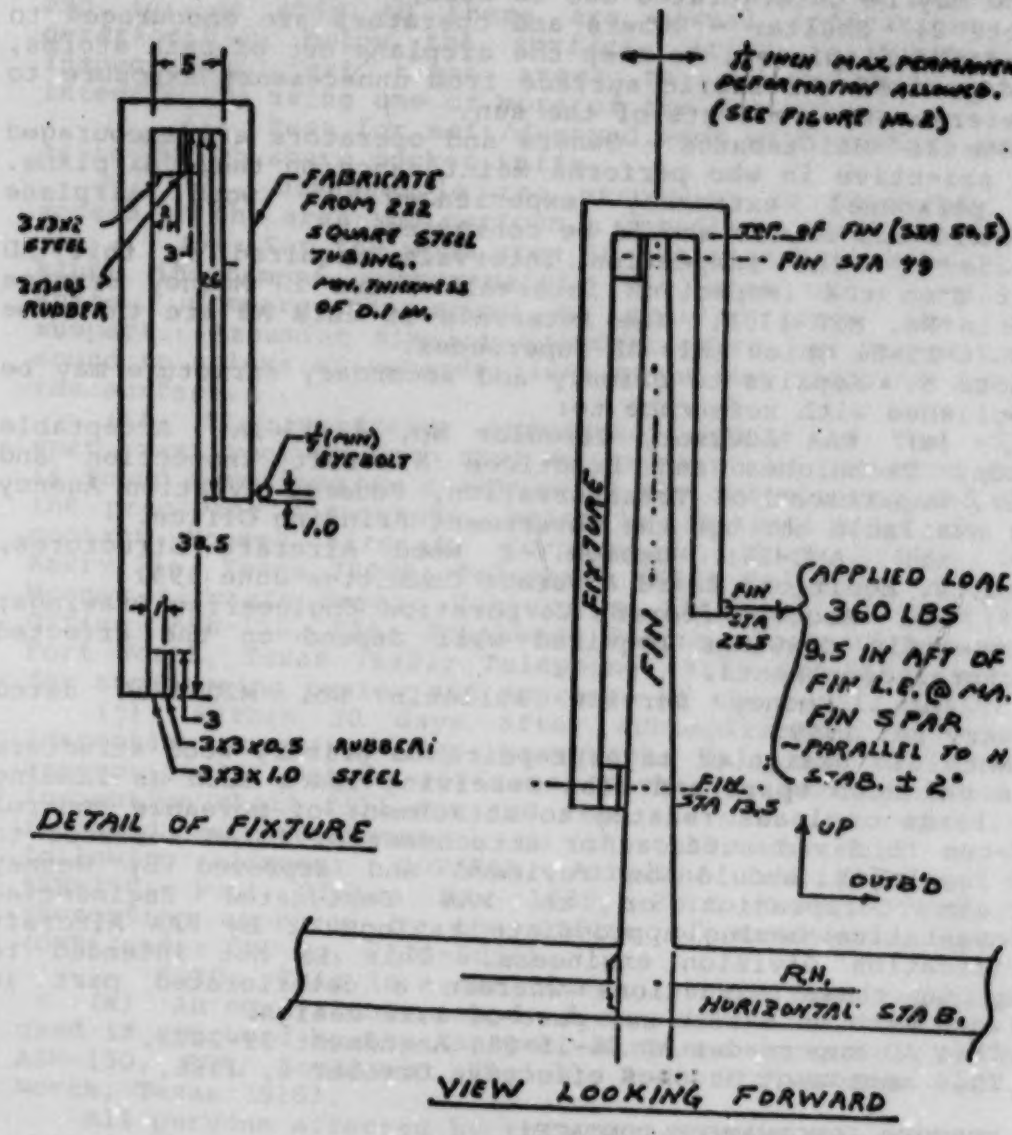


FIGURE NO. 1 - APPLICATION OF FIN SIDE PROOF LOAD ON MAIN SPAR

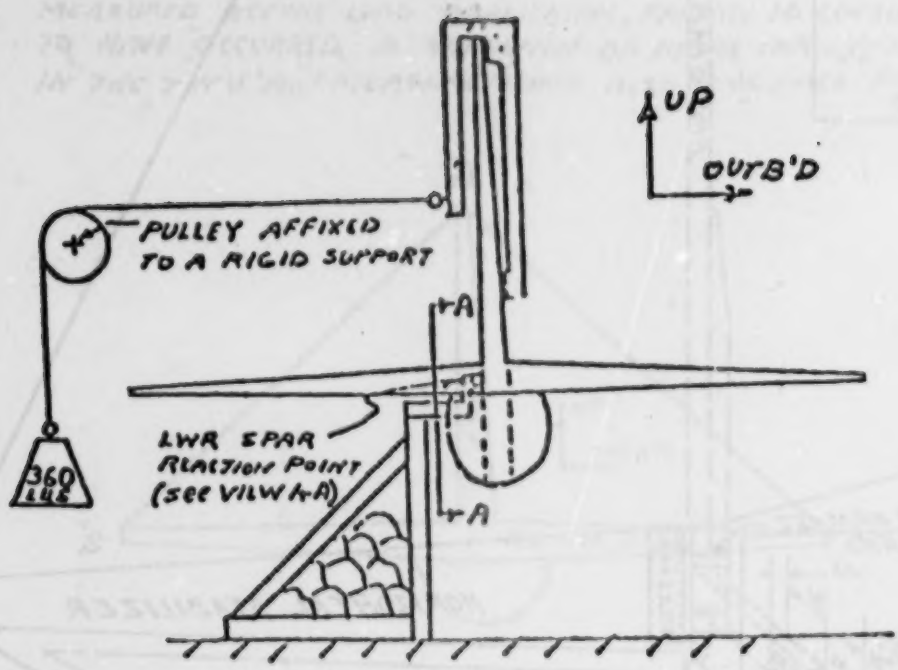
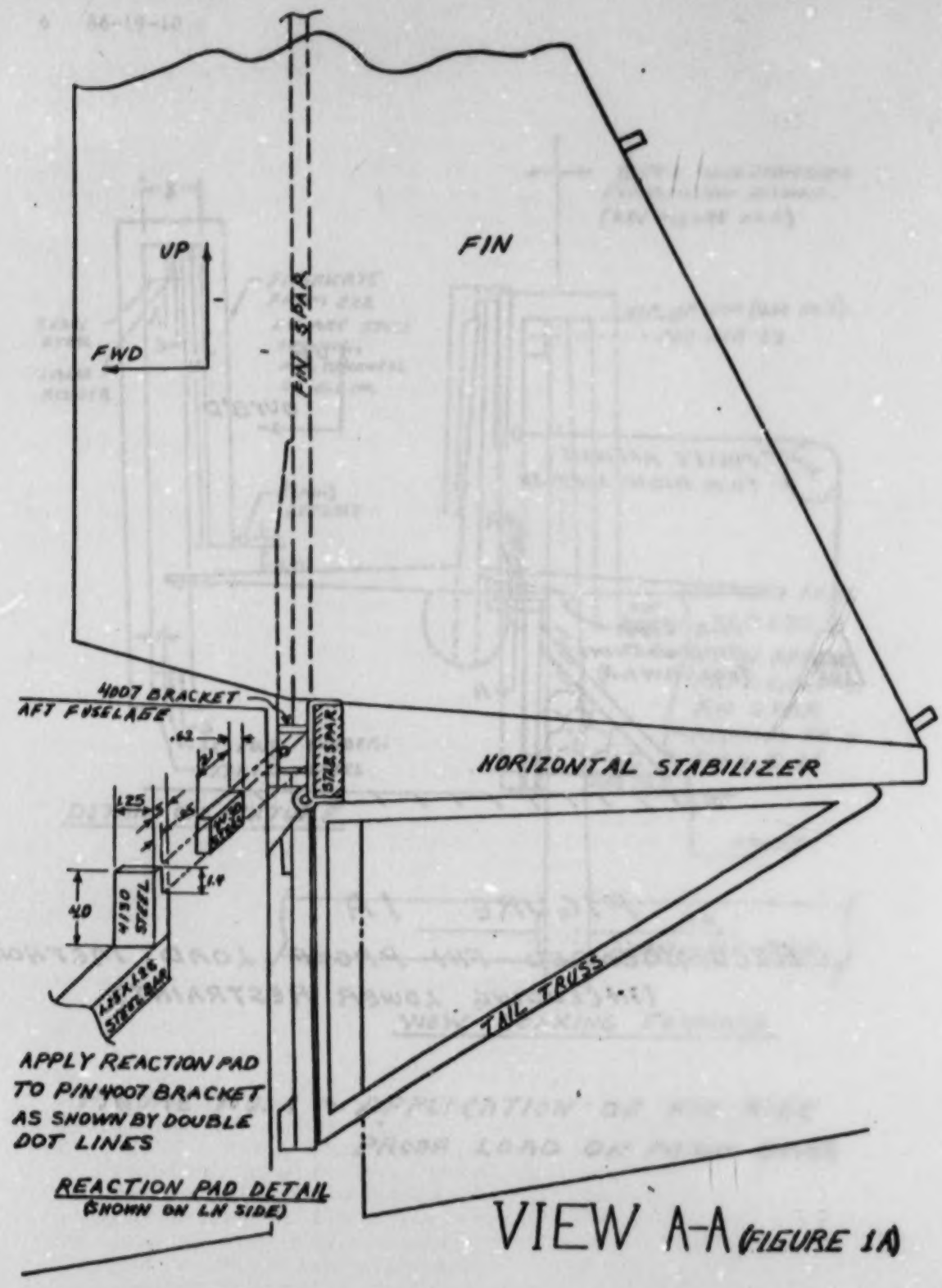


FIGURE 1A

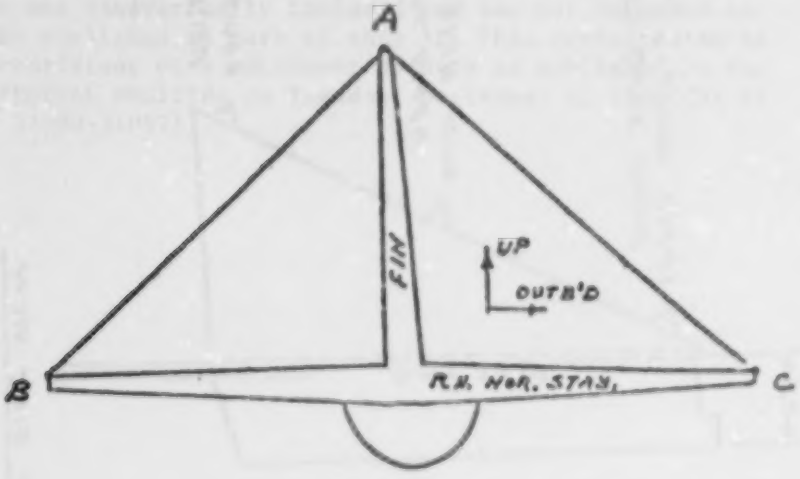
RECOMMENDED FIN PROOF LOAD METHOD (INCLUDING LOWER RESTRAINT)



VIEW A-A (FIGURE 1A)

NOTES:

1. MARK A POINT 'A' ON THE FIN TIP
2. MARK POINTS 'B' AND 'C' ON THE HORIZONTAL STAB. TIPS
3. MEASURE THE DISTANCES 'AB' AND 'AC' BEFORE AND AFTER APPLICATION OF LOADS SHOWN BY FIG. NO. 1
4. IF THE DISTANCE 'AB' MEASURED AFTER LOAD APPLICATION VARIES BY MORE THAN $\frac{1}{16}$ INCH FROM THE DISTANCE 'AB' MEASURED BEFORE LOAD APPLICATION, FAILURE IS CONSIDERED TO HAVE OCCURRED. A VARIATION OF MORE THAN $\frac{1}{8}$ INCH IN THE TWO 'AC' MEASUREMENTS ALSO CONSTITUTES FAILURE



VIEW LOOKING FORWARD

FIGURE NO. 2 - FIN PERMANENT DEFORMATION LIMITS

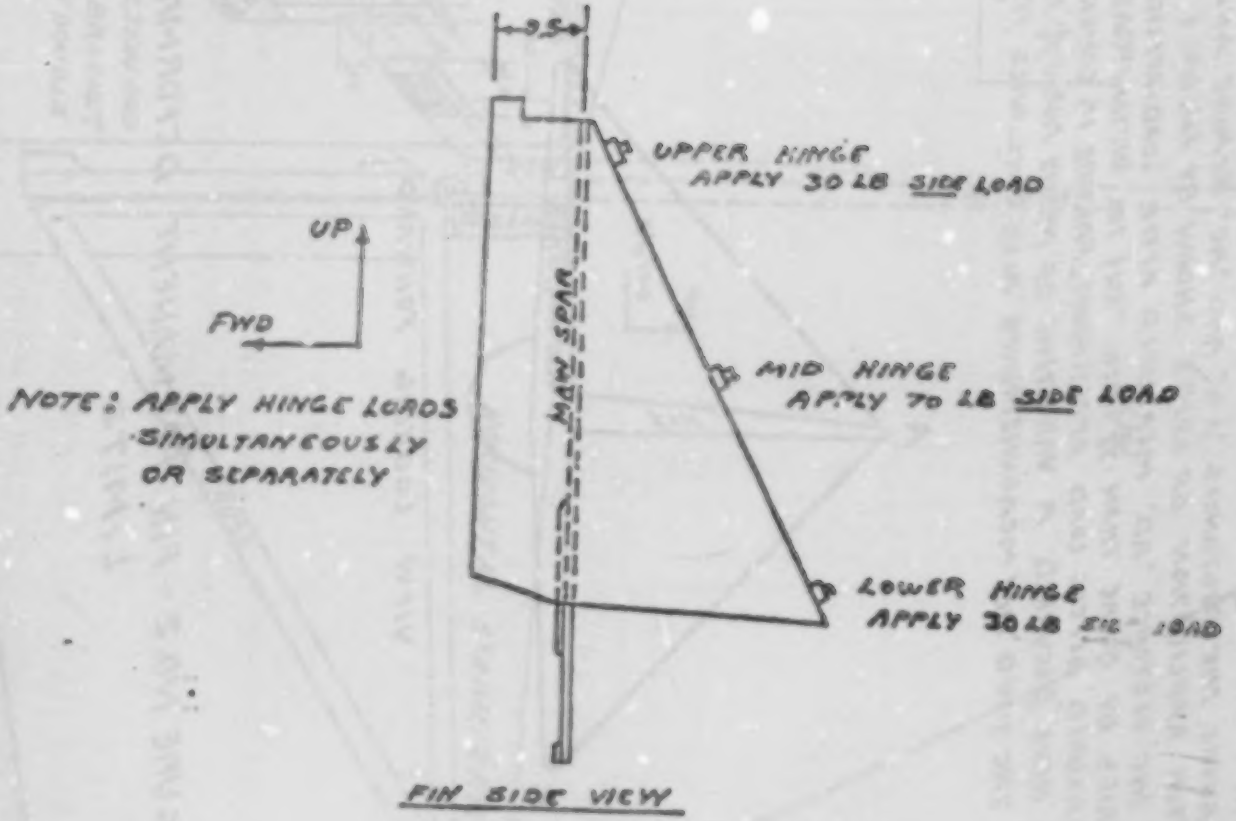


FIGURE NO. 3 - FIN-RUDDER HINGE SIDE PROOF LOAD APPLICATION

NOTE

This correction is issued to remove Figure No. 4 from Airworthiness Directive (AD) No. 86-19-10 as mailed to aircraft owners and published in Biweekly Issue 86-19 of the Summary of Airworthiness Directives. Figure No. 4 was inadvertantly included and was not intended to be published as part of this AD. This corrected AD is consistent with Amendment 39-5408 as published in the FEDERAL REGISTER on Tuesday, September 2, 1986 (51 FR 31090-31097).

ATTACHMENT 1

Inspection Results Reporting Form, Mooney M20 and M20A Wood Structure Inspection.

I. Airplane Model No. _____, Serial No. _____.

II. Airplane N-Number _____.

III. Does the airplane have a metal empennage installed:
Yes_____ No _____

If no, go to IV, if yes, skip to V.

IV. For airplanes that have the wooden empennage:

- Did the visual inspection of the empennage result in discovery of any failed glue joints, rotted wood or delaminated wood?
Yes ____ No ____

If yes, describe location and extent of problem.

- Did the visual inspection of the empennage result in discovery of any deteriorated paint or fabric covering?
Yes ____ No ____

If yes, describe location and extent.

- Did the visual inspection of the empennage result in discovery of any indications of water inside the empennage?
Yes ____ No ____

If yes, describe where it got in and where it pooled.

- Did the empennage pass or fail the proof load tests of paragraph (d)?
Yes ____ No ____

- This inspection and testing of the wood empennage on this airplane results in the conclusion that its overall general structural condition is:

Poor ____
Fair ____
Good ____
Excellent ____

- Make any comments you wish to make about adding or deleting inspections and testing of the wood empennage on M20 and M20A airplanes:

V. Wing inspection results.

- Did the visual inspection of the wing and wing carry-thru result in discovery of any failed glue joints, rotted wood or delaminated wood?
Yes ____ No ____

If yes, describe location and extent of problem.

- Did the visual inspection of the wing and wing carry-thru result in discovery of any deteriorated paint, fabric covering plugged drain holes or deteriorated scupper box seal?

Yes ____ No ____

If yes, describe problem, location and extent.

- Did the visual inspection of the wing and wing carry-thru result in discovery of any indications of water inside the wing?

Yes ____ No ____

If yes, describe where it got in and where it pooled.

- This inspection of the wing on this airplane results in the conclusion that its overall general structural condition is:

Poor ____
Fair ____
Good ____
Excellent ____

- Make any comments you wish to make about adding or deleting inspections of the wing on M20 and M20A airplanes:

Mechanics Name: _____

FAA Certificate Number: _____

Date: _____

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BELL
Airworthiness Directive
VOLUME I

86-24-01 BELL HELICOPTER TEXTRON, INC.: Amendment 39-5468. Applies to Model 206A, 206B, and 206L helicopters certificated in any category equipped with T/R yoke Part Number (P/N) 206-011-819-101 in combination with T/R crosshead P/N 206-010-741-001 or -003.

Compliance is required as indicated unless already accomplished.

To prevent failure of the T/R pitch links, accomplish the following:

(a) Within the next 25 hours' time in service, inspect T/R assembly and determine if T/R yoke P/N 206-011-819-101 is installed in combination with T/R crosshead P/N 206-010-741-001 or -003. If this T/R yoke and crosshead combination is installed, either:

(1) Remove T/R yoke P/N 206-011-819-101 and replace it with T/R yoke P/N 206-011-811-009; or

(2) Remove T/R crosshead P/N 206-010-741-001 or -003 and replace it with T/R crosshead P/N 206-011-855-001 or 206-011-857-001.

(b) Alternative inspections, modification, or other actions which provide an equivalent level of safety may be used when approved by the Manager, Helicopter Certification Branch, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101.

This amendment becomes effective December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Gary B. Roach, Helicopter Certification Branch, ASW-170, Aircraft Certification Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone number (817) 624-5179.

AEROSPATIALE
Airworthiness Directive
Priority Letter
VOLUME I

86-24-02 AEROSPATIALE HELICOPTERS: Priority letter issued November 21, 1986. Applies to Aerospatiale Model AS 355 series helicopters fitted with debris guards part numbers 355A58-0519-0201 and 355A58-0519-0301, certificated in any category.

Compliance is required within 10 hours' time in service after the effective date of this AD.

To avoid operating conditions where ice ingestion into the engines may cause engine flameout, accomplish the following:

(A) Permanently attach a placard, stencil, or decal to the instrument panel in full view of the flight crew which includes the following limitation statement: ALL FLIGHT OPERATIONS BELOW PLUS 5 DEGREES CELSIUS IN ICE CRYSTALS, RAIN, MIST, DRIZZLE, CLOUDS, OR SLEET ARE PROHIBITED. FLIGHT OPERATIONS IN SNOW ABOVE MINUS 5 DEGREES CELSIUS ARE PHOHIBITED. IMC FLIGHTS BELOW PLUS 5 DEGREES CELSIUS ARE PROHIBITED.

(B) Accomplish a pen-and-ink addition to the RFM Operating Limitations, Section 2.1, paragraph 1, to read as follows: ENGINE ANTI-ICE MUST BE OPERATED IN VISIBLE MOISTURE WHEN OAT IS BELOW PLUS 5 DEGREES CELSIUS.

Upon request, an alternate means of compliance which provides an equivalent level of safety with the requirements of this AD may be used when approved by the Manager, FAA, Southwest Region, Aircraft Certification Division, ASW-100, P.O. Box 1689, 4400 Blue Mound Road, Fort Worth, Texas 76101.

This priority letter AD is effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:

Larry M. Kelly, FAA, Southwest Region, Aircraft Certification Division, ASW-100, P.O. Box 1689, 4400 Blue Mound Road, Fort Worth, Texas 76101, telephone (817) 624-5158.

PIONEER PARACHUTE
Airworthiness Directive
Priority Letter
VOLUME I

86-24-03 PIONEER PARACHUTE COMPANY: Priority letter issued November 21, 1986. Applies to Pioneer Parachute Company K-XX canopies with the following serial numbers:

598539	598553	598864	599561
598540	598554	598962	599562
598541	598555	598996	599563
598542	598556	598997	599613
598546	598579	598998	599614
598547	598842	598999	599640
598548	598843	599002	599701
598549	598844	599003	599702
598550	598845	599007	599703
598552	598858	599164	599711

To prevent use of affected canopies as FAA approved canopies, due to understrength material, remove or obliterate TSO C-23b marking.

NOTES: (1) Pioneer Parachute Company Safety Notice, dated November 17, 1986, applies to this AD.

(2) Investigation is continuing and this AD may be amended in light of the results of the investigation.

Upon request, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, Boston Aircraft Certification Office, ANE-150, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

This priority letter AD is effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:
Terry Fahr, Boston Aircraft Certification Office, ANE-153, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7103.

BRITISH AEROSPACE
Airworthiness Directive
VOLUME I

86-24-06 BRITISH AEROSPACE: Amendment 39-5472. Applies to Models HP-137 MK 1 and Jetstream 200 Series (all serial numbers), and Model Jetstream 3101 (S/N 601-633, 635-646 and 648-654 inclusive) airplanes certificated in any category.

Compliance: Required within 600 hours time-in-service (TIS) after the effective date of this AD, unless already accomplished.

To prevent unacceptable aileron control vibration and aileron jamming, accomplish the following:

(a) Inspect the special stud BAe P/N 13705E29 and nut BAe P/N A103-JT for tightness, visible thread length and punch marks, in accordance with Section 2. "Accomplishment Instructions" in BAe Mandatory S/B No. 27-JM-5257, dated June 6, 1986.

(1) If the special stud and nut are secure, and the special stud end protrudes 1-1/2 to 2 threads beyond the nut and all three punch marks are visible, no further action is necessary.

(2) If the special stud and nut are loose, or the special stud end does not protrude 1-1/2 to 2 threads beyond the nut, or all three punch marks are not visible, prior to further flight, remove aileron quadrant in accordance with Section 2. "Accomplishment Instructions," Paragraph B. "Removal/Installation" in BAe Mandatory S/B No. 27-JM-5257, dated June 6, 1986, and check the security of the nut P/N A103-JT securing the special stud P/N 13705E29 to the quadrant, and determine that peening of the stud is in accordance with the above BAe Service Bulletin.

(i) If security and locking are satisfactory, prior to further flight, reinstall aileron control quadrant using steps (13) to (20) inclusive of the above Service Bulletin, and no further action is required.

(ii) If the securing nut P/N A103-JT or special stud P/N 13705E29 is loose or the peening of the stud is not in accordance with the above BAe Service Bulletin, prior to further flight, remove and replace nut BAe P/N A103-JT with new nut BAe P/N RMTE 9868-6, install new stud BAe P/N 13705E91 and add split pin SP90-C7 to lock the nut on, according to the instructions in BAe Mandatory S/B 27-JM-5257, dated June 6, 1986.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, B-1000 Brussels, Belgium.

All persons affected by this directive may obtain copies of the document referred to herein upon request to British Aerospace PLC., Manager, Product Support Civil Aircraft

Division, Prestwick Airport, Ayrshire, KA9 2RW, Scotland; or British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 2, 1987.

FOR FURTHER INFORMATION CONTACT:

Mr. Ted Ebina, Aircraft Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, B-1000 Brussels, Belgium; Telephone (322) 513.38.30; or Mr. Harvey A. Chimerine, FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (316) 374-6932.

CESSNA
Airworthiness Directive
VOLUME I

86-24-07 CESSNA: Amendment 39-5475. Applies to the following model and serial number single-engine airplanes certificated in any category manufactured thru Model year 1978 equipped with ball type rod ends on the engine controls.

Models	Serial Numbers
150C thru 150M	S/N 15059701 thru 15079405
A150K thru A150M	S/N A1500001 thru A1500734
152	S/N 15279406 thru 15282031
A152	S/N A1520735 thru A1520808
172D thru 172N	S/N 17249545 thru 17271034
R172K	S/N R1722000 thru R1722929
P172	S/N P17257120 thru P17257188
177 thru 177B	S/N 17700001 thru 17702752
177RG	S/N 177RG0001 thru 177RG1366
180F thru 180K	S/N 18051184 thru 18053000
182F thru 182Q	S/N 18254424 thru 18266590
R182	S/N R18200001 thru R18200583
185B thru 185E	S/N 185-0513 thru 185-1599
A185E, A185F	S/N 18501600 thru 18503683
188, A188	S/N 188-0001 thru 188-0572
A188A, 188B	S/N 18800573 thru 18803296
A188B	S/N 18800967T thru 18803296T
205, 205A	S/N 205-0001 thru 205-0577
206, U206	S/N 206-0001 thru 206-0275
U206A thru U206G	S/N U206-0276 thru U206-1444
TU206A thru TU206G	S/N U20601445 thru U20604649
P206, P206A thru P206E	S/N P206-0001 thru P206-0603
TP206A thru TP206E	S/N P20600604 thru P20600647
207, 207A, T207, T207A	S/N 20700001 thru 20700482
210C thru 210M and T210K thru T210M	S/N 21058086 thru 21062954
T210F thru T210J	S/N T210-0001 thru T210-0454
P210N	S/N P21000001 thru P21000150
F150F thru F150M	S/N F150-0001 thru F150-0529
	S/N F15000530 thru F15001428
FA150K, FA150L	S/N FA1500001 thru FA1500120
FRA150L, FRA150M	S/N FRA1500121 thru FRA1500336
F152	S/N F15201429 thru F15201528
FA152	S/N FA1520337 thru FA1520347
FP172	S/N FP172-0001 thru FP172-0003
F172D thru F172N	S/N F172-0001 thru F172-0654
	S/N F17200655 thru F17201749
FR172E thru FR172K	S/N FR17200001 thru FR17200630
F177RG	S/N F177RG0001 thru F177RG0177
F182P, F182Q	S/N F18200001 thru F18200094
FR182	S/N FR18200001 thru FR18200020
R172E thru R172H	S/N R172-0001 thru R172-0409
	S/N R1720410 thru R1720625

Compliance: Required within the next 100 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine power interruption due to loss of attachment of the engine controls, accomplish the following:

(a) Modify the engine controls installation by installing a drilled steel bolt, AN310 type castellated nut and a steel cotter pin in accordance with Cessna Single-Engine Customer Care Service Information Letter SE79-6.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Wichita Aircraft Certification Office, Federal Aviation Administration, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Cessna Aircraft Company, Customer Services, Post Office Box 1521, Wichita, Kansas 67201; or the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 7, 1987.

FOR FURTHER INFORMATION CONTACT:

Mr. Paul O. Pendleton, Aerospace Engineer, Wichita Aircraft Certification Office, Federal Aviation Administration, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4427.

BRITISH AEROSPACE
Airworthiness Directive
VOLUME I

86-24-08 BRITISH AEROSPACE (BAe): Amendment 39-5476. Applies to Model 3101 Jetstream (Serial Numbers 601, 603, 604, 606 to 610, 614, 620, 622, 624 to 626, 628 to 632, 634 to 636, and 638 to 653 inclusive) airplanes certificated in any category.

Compliance: Required within the next 200 hours time-in-service after the effective date of this AD, unless already accomplished.

To ensure that adequate lighting supply to the standby artificial horizon and altitude alert controller indicator (if fitted) is maintained during loss of the main busbar supply, accomplish the following:

(a) Incorporate British Aerospace (BAe) modification JM7490 in accordance with the "Accomplishment Instructions" contained in BAe Alert Service Bulletin No. 24-A-JM7490 dated October 30, 1985, Revision No. 1 dated July 22, 1986, by changing the electrical supply source for the right upper center panel instrument lighting converter unit (1LH9) from the 28V d.c. main busbar to the 28V d.c. essential busbar.

(b) Aircraft may be flown in accordance with Federal Aviation Regulations 21.197 to a location where this AD can be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA c/o American Embassy, 1000 Brussels, Belgium.

All persons affected by this directive may obtain copies of the document referred to herein upon request to British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041; Telephone (703) 435-9100; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 7, 1987.

FOR FURTHER INFORMATION CONTACT:

Mr. Ted Ebina, Brussels Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium; Telephone 513.38.30; or Mr. H. Chimerine, FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

86-24-09 BEECH AIRCRAFT CORPORATION: Amendment 39-5482. Applies to Model B-100 (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Revise the airplane Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POH/AFM. Appendix 1 procedures supersede any other POH/AFM procedures which may be contradictory.

(b) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent method of compliance with this AD, if used, must be approved by contacting the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the document referred to herein upon request to GTEC, P.O. Box 5217, Phoenix, Arizona 85010; Telephone (602) 231-1000; or Beech Aircraft Corporation, P.O. Box 85, Wichita, Kansas 67201; Telephone (316) 681-9111; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, Central Region, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

86-24-09

APPENDIX 1

Supplement to the POH/AFM
Beech Model B-100 Airplanes

The MAN FUEL/IGN switches shall be selected to ON during all operations in actual or potential icing conditions described herein:

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

*(3) Before selecting ANTI-ICE, when ice has accumulated.

(4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to the ANTI-ICE ON position. If the engine runs satisfactorily, switch the second ENGINE system to the ANTI-ICE ON position and check that the second engine continues to run satisfactorily.

CAUTION

Flight in actual or potential icing conditions will be limited by duty cycle of the ignition system. Ignition system time limits must be observed to prevent exceeding duty cycle times. Operator should verify these limits for his particular installation.

For the purpose of this supplement, the following definition applies:

"Potential icing conditions in precipitation or visible moisture meteorological conditions:

(1) Begin when the OAT is +5°C (+41°F) or colder, and

(2) End when the OAT is +10°C (+50°F) or warmer."

The procedures and conditions described in this appendix supersede any other POH/AFM procedures and conditions which may be contradictory.

86-24-10 BRITISH AEROSPACE, PLC, Aircraft Group, Civil Division-Prestwick: Amendment 39-5480. Applies to Jetstream Model 3101 (including 3100) (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Revise the airplane Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POH/AFM. Appendix 1 procedures supersede any other POH/AFM procedures which may be contradictory.

(b) The requirements of paragraph (a) of this AD are no longer required when the airplane is modified by the addition of an FAA approved automatic-relite ignition system.

NOTE: Automatic-relite ignition is a system which automatically energizes engine ignition without pilot action when engine RPM or torque decays below a specified level, and deenergizes engine ignition when RPM or torque exceeds the specified level. It is not synonymous with CONTINUOUS IGNITION.

(c) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent method of compliance with this AD, if used, must be approved by contacting the Manager, Brussels Certification Office, AEU-100, Europe, Africa, and Middle East Office, c/o American Embassy, 1000 Brussels, Belgium; Telephone 513.38.30, extension 2710/2711.

All persons affected by this AD may obtain copies of the document referred to herein upon request to GTEC, Post Office Box 5217, Phoenix, Arizona 85010; or British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

APPENDIX 1

Supplement to the POH/AFM
BAe Model 3101 Airplanes

"The ENGINE ICE PROTECTION switch shall be selected to ANTI-ICE/IGN during all operations in actual or potential icing conditions described herein:

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

(3) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(4) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to ANTI-ICE/IGN position. If the engine runs satisfactorily, switch the second ENGINE system to the ANTI-ICE/IGN position and check that the second engine continues to run satisfactorily.

CAUTION

Flight in actual or potential icing conditions will be limited by duty cycle of the ignition system. Ignition system time limits must be observed to prevent exceeding duty cycle times. Operator should verify these limits for his particular installation.

"Potential icing conditions in precipitation or visible meterological conditions:

(1) Begin when the OAT is +5°C (+41°F) or colder, or

(2) End when the OAT is +10°C (+50°F) or warmer."

The procedures and conditions described in this appendix supersede any other POH/AFM procedures and conditions which may be contradictory.

86-24-11 FAIRCHILD AIRCRAFT CORPORATION: Amendment 39-5481. Applies to Fairchild Aircraft Corporation Models SA 226-T, SA 226-T(B), SA 226-AT, and SA 226-TC (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Revise the airplane Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POH/AFM. Appendix 1 procedures supersede any other POH/AFM procedures which may be contradictory.

NOTE: Automatic-relite ignition is a system which automatically energizes engine ignition without pilot action when engine RPM or torque decays below a specified level, and de-energizes engine ignition when RM or torque exceeds the specified level. It is not synonymous with CONTINUOUS IGNITION.

(b) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent method of compliance with this AD, is used, must be approved by contacting the Manager, Airplane Certification Branch, ASW-150, Rotorcraft Certification Directorate, P.O. Box 1689, Fort Worth, Texas 76101; Telephone (817) 877-5150.

All persons affected by this directive may obtain copies of the document referred to herein upon request to GTEC, P.O. Box 5217, Phoenix, Arizona 85010; Telephone (602) 231-1000; or Fairchild Aircraft Corporation, P.O. Box 32486, San Antonio, Texas 78284; Telephone (512) 824-9421; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, Central Region, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

APPENDIX 1

Supplement to the POH/AFM
Fairchild Models SA 226-T, SA 226-T(B)
SA 226-AT, and SA 226-TC Airplanes

"The IGNITION MODE switches shall be selected to AUTO/CONT during all operations in actual or potential icing conditions described herein:

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

*(3) Before selecting ANTI-ICE, when ice has accumulated.

(4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to an ENGINE HEAT position. If the engine runs satisfactorily, switch the second ENGINE system to an ENGINE HEAT position and check that the second engine continues to run satisfactorily.

For the purpose of this supplement, the following definition applies:

Potential icing conditions in precipitation or visible moisture meteorological conditions:

(1) Begin when the OAT is +5°C (+41°F) or colder, and

(2) End when the OAT is +10°C (+50°F) or warmer."

The procedures and conditions described in this appendix supersede any other POH/AFM procedures and conditions which may be contradictory.

GULFSTREAM
Airworthiness Directive
VOLUME I

86-24-12 GULFSTREAM AEROSPACE CORPORATION: Amendment 39-5483. applies to Models 690 and 695 (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Revise the airplane Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POH/AFM. Appendix 1 procedures supersede any other POH/AFM procedures which may be contradictory.

(b) The requirements of paragraph (a) of this AD are no longer required when the airplane is modified by the addition of an FAA-approved automatic-relite ignition system.

NOTE: Automatic-relite ignition is a system which automatically energizes engine ignition without pilot action when engine RPM or torque decays below a specified level, and de-energizes engine ignition when RPM or torque exceeds the specified level. It is not synonymous with CONTINUOUS IGNITION.

(c) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent method of compliance with this AD, if used, must be approved by contacting the Manager, Airplane Certification Branch, ASW-150, Rotorcraft Certification Directorate, 4400 Blue Mound Road, P.O. Box 1689, Fort Worth, Texas 76101; Telephone (817) 877-5150.

All persons affected by this directive may obtain copies of the document referred to herein upon request to GTEC, P.O. Box 5217, Phoenix, Arizona 85010; Telephone (602) 231-1000; or Gulfstream Aerospace Corporation, Wiley Post Airport, Oklahoma City, Oklahoma 73123; Telephone (405) 789-5000; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 15, 1986.

FOR FURTHER INFORMATION CONTACT:
Mr. John P. Dow, Sr., FAA, Central Region, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

APPENDIX 1

Supplement to the POH/AFM
Gulfstream Aerospace Corporation
Models 690, 690A, 690B, 690C, 690D,
695, 695A, and 695B Airplanes

Continuous ignition shall be assured by selecting Manual IGN or IGN Override or IGN OVRD on the ignition switch as appropriate during all operations in actual or potential icing conditions described herein.

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

*(3) Before selecting ENG INLET, when ice has accumulated.

(4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to ENG INLET ON position. If the engine runs satisfactorily, switch the second ENGINE system to the ENG INLET ON position and check that the second engine continues to run satisfactorily.

CAUTION

Flight in actual or potential icing conditions will be limited by duty cycle of the ignition system. Ignition system time limits must be observed to prevent exceeding duty cycle times. Operator should verify these limits for his particular installation.

For the purpose of this supplement, the following definition applies:

"Potential icing conditions in precipitation or visible moisture meteorological conditions:

(1) Begin when the OAT is +5°C (+41°F) or colder, and

(2) End when the OAT is +10°C (+50°F) or warmer."

The procedures and conditions described in this appendix supersede any other POH/AFM procedures and conditions which may be contradictory.

86-24-13 CESSNA AIRCRAFT COMPANY: Amendment 39-5484. Applies to Model 441 (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Revise the airplane Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POH/AFM. Appendix 1 procedures supersede any other POH/AFM procedures which may be contradictory.

(b) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent method of compliance with this AD, if used, must be approved by contacting the Manager, Wichita Aircraft Certification Office, ACE-115W, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the document referred to herein upon request to GTEC, P.O. Box 5217, Phoenix, Arizona 85010; Telephone (602) 231-1000; or Cessna Aircraft Company, P.O. Box 7704, Wichita, Kansas 67277; Telephone (316) 946-6143; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, Central Region, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

APPENDIX 1

Supplement to the POH/AFM
Cessna Model 441 Airplanes

The ENGINE IGNITION OVERRIDE switches shall be selected to ON during all operations in actual or potential icing conditions described herein:

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

*(3) Before selecting ANTI-ICE, when ice has accumulated.

(4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to the ANTI-ICE ON position. If the engine runs satisfactorily, switch the second ENGINE system to the ANTI-ICE ON position and check that the second engine continues to run satisfactorily.

CAUTION

Flight in actual or potential icing conditions will be limited by duty cycle of the ignition system. Ignition system time limits must be observed to prevent exceeding duty cycle times. Operator should verify these limits for his particular installation.

For the purpose of this supplement, the following definition applies:

"Potential icing conditions in precipitation or visible moisture meteorological conditions:

(1) Begin when the OAT is +5°C (+41°F) or colder, and

(2) End when the OAT is +10°C (+50°F) or warmer."

The procedures and conditions described in this appendix supersede any other POH/AFM procedures and conditions which may be contradictory.

BEECH
Airworthiness Directive
Final Copy of Letter
VOLUME I

86-21-07 BEECH: Amendment 39-5474. Applies to all Model 35, 35R, A35, B35, C35, D35, E35, F35, G35, H35, J35, K35, M35, N35, P35, S35, V35, V35A and V35B (all serial numbers) airplanes certificated in any category except to those Model S35, V35, V35A and V35B airplanes modified per Supplemental Type Certificate SA2149CE (straight tail conversion).

Compliance: Required prior to further flight after receipt of this AD, unless already accomplished.

To prevent possible failure of the V-tail empennage when operating the airplane in conditions where only marginal structural strength may be available, accomplish the following:

(a) For Models 35, 35R, A35, B35, C35, D35, E35, F35, or G35:

(1) Fabricate and install on the instrument panel as near as possible to the airspeed indicator and in clear view of the pilot the following placard using letters of 0.10 inch minimum height:

"Never exceed speed, Vne, 144 MPH (125 knots) IAS
Maximum structural cruising speed, Vno, 135 MPH (117 knots) IAS
Maneuvering speed, V_A, 127 MPH (110 knots) IAS."

(2) Mark the outside surface of the airspeed indicator with lines of approximately 1/16 inch by 3/16 inch as follows:

(A) Red line at 144 MPH (125 knots), and

(B) Yellow line at 135 MPH (117 knots), and

(C) A white slippage mark between the airspeed indicator glass and case to visually verify glass has not rotated.

(3) Place a copy of this AD in the Pilot's Operating Handbook and FAA approved Airplane Flight Manual and observe the specified limits.

(4) Operate the airplane in accordance with these speed limitations.

(b) For Models H35, J35, K35, M35, N35, P35, S35, V35, V35A and V35B:

(1) Fabricate and install on the instrument panel as near as possible to the airspeed indicator and in clear view of the pilot the following placard using letters of 0.10 inch minimum height:

"Never exceed speed, Vne, 197 MPH (171 knots) IAS
Maximum structural cruising speed, Vno, 177 MPH (154 knots) IAS
Maneuvering speed, V_A, 132 MPH (115 knots) IAS."

(2) Mark the outside surface of the airspeed indicator with lines of approximately 1/16 inch by 3/16 inch as follows;

(A) Red line at 197 MPH (171 knots), and

(B) Yellow line at 177 MPH (154 knots), and

(C) A white slippage mark between the airspeed indicator glass and case to visually verify glass has not rotated.

(3) Place a copy of this AD in the Pilot's Operating Handbook and FAA approved Airplane Flight Manual and observe the specified limits.

(4) Operate the airplane in accordance with these speed limitations.

(c) For all applicable models, fabricate and install on the instrument panel, over the existing "Utility Category" placard the following placard using letters of 0.10 inch minimum height:

"Normal Category Operation Only"

and operate the airplane accordingly.

(d) The requirements of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed in FAR 91.173.

(e) An equivalent method of compliance with this AD may be used when approved by the Manager, Wichita Aircraft Certification Office, Federal Aviation Administration, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

This amendment becomes effective December 3, 1986, as to all persons except those to whom it has already been made effective by priority letter dated October 16, 1986, and is identified as AD 86-21-07.

FOR FURTHER INFORMATION CONTACT:

Mr. Brian Yanez, FAA, Wichita Aircraft Certification Office, ACE-120W, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4409.

SIKORSKY
Airworthiness Directive
Correction
VOLUME I

86-14-07 SIKORSKY AIRCRAFT: Amendment 39-5432. Applies to all Model S-76A helicopters certificated in any category and model S-76B helicopters, serial numbers 760262, 760269, 760299, 760303, and 760310 through 760319, certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent operation with a failed pilot's yaw control rod assembly, P/N 76400-00034-041, accomplish the following:

(a) Prior to further flight, inspect the push rod assembly in accordance with Section E, paragraph 1, of Sikorsky Alert Service Bulletin (ASB) No. 76-ASB-76-67-22A, dated July 7, 1986, or an FAA-approved equivalent. If no dent, crack, distortion, or bowing is detected in the rod, install a placard legible to the pilot and in full view of the pilot stating "single pilot operation prohibited." This placard is to remain until the inspection required by paragraph (b) below is accomplished.

(b) Within the next 25 hours' time in service after the effective date of this AD, inspect the push rod assembly for condition of heat treat in accordance with Section E, paragraph 2, of Sikorsky ASB No. 76-ASB-76-67-22A, dated July 7, 1986, or an FAA-approved equivalent.

(c) If as a result of the inspection of paragraph (a), a dent, crack, distortion, or bowing is detected or if as a result of the inspection of paragraph (b) above, the heat treat (hardness) is incorrect, replace the rod assembly with a new or serviceable component that complies with this AD prior to further flight.

(d) Aircraft may be ferried in accordance with the provision of FAR Sections 21.197 and 21.199 to a base where the requirements of the AD can be accomplished.

(e) Upon request, an alternate method of compliance which provides an equivalent level of safety with the requirements of this AD may be approved by the Manager, Boston Aircraft Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7118.

Sikorsky Aircraft ASB No. 76-ASB-76-67-22A identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Sikorsky Aircraft, Division of United Technologies, North Main Street, Stratford, Connecticut 06601. This document also

may be examined at the Rules Docket, Office of the Regional Counsel, Federal Aviation Administration, Southwest Region, 4400 Blue Mound Road, Fort Worth, Texas, 76106.

This amendment becomes effective November 24, 1986, as to all persons except those to whom it was made immediately effective by individual priority letter AD No. 86-14-07 issued July 9, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Cheryl McCabe, ANE-152, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7112.

FAIRCHILD
Airworthiness Directive
Revision
VOLUME I

81-26-05 R1 FAIRCHILD AIRCRAFT CORP.: Amendment 39-4286 as amended by Amendment 39-5469. Applies to Models SA26 (S/N T26-2 through T26-99), and SA26-AT (S/N T26-100 through T26-999) airplanes certificated in any category.

Compliance: Required within the next 25 hours time in service after the effective date of this AD, and thereafter at intervals not to exceed 200 hours time-in-service since last compliance, unless already accomplished.

To prevent a failure at the lower forward wing station 99 attach joint, accomplish the following:

(a) In accordance with Fairchild Service Bulletin 26-57-40-015, issued January 18, 1972, as revised June 26, 1986:

(1) Remove the lower forward wing station 99 attach joint coverplate and wing attach bolt.

(2) Inspect the lower forward wing station 99 attaching fitting for deterioration and cracks and, prior to further flight, replace damaged parts with new parts of the same part numbers.

(3) Inspect the lower forward wing station 99 attach bolt for identifying part number, deterioration and cracks and, prior to further flight, replace any damaged bolt or bolt not identified as P/N MS20014-29 bolt with a new P/N MS20014-29 bolt.

(b) When the wing has been modified by (STC) SA1830NM, "Installation of Wing Spar Reinforcement," the inspection intervals required by this AD may be increased from 200 hours time-in-service to 1,500 hours time-in-service or every 3 years since last compliance, whichever occurs first.

(c) The intervals between repetitive inspections required by this AD may be adjusted up to 10 percent of the specified interval to allow accomplishing these inspections concurrent with other scheduled maintenance of the airplane.

(d) A special flight permit may be issued in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent method of compliance with this AD may be used when approved by the Manager, Airplane Certification Branch, ASW-150, Southwest Regional Office, FAA, Fort Worth, Texas 76101; Telephone (817) 624-5150.

All persons affected by this AD may obtain copies of the documents referred to herein upon request to Fairchild Aircraft Corp., Post Office Box 32486, San Antonio, Texas 78284; and AviaDesign, Inc., Hangar 1, 173 Durley Avenue, Camarillo Airport, Camarillo, California 93010; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

81-26-05 R1

This AD revises AD 81-26-05, Amendment 39-4286, which became effective December 30, 1981.

This amendment, 39-5469, becomes effective on December 29, 1986.

FOR FURTHER INFORMATION CONTACT:

Michele M. Owsley, Airplane Certification Branch, Aircraft Certification Division, ASW-150, Federal Aviation Administration, Post Office Box 1689, Fort Worth, Texas 76101; Telephone (817) 624-5161.

85-18-02 R1 MCDONNELL DOUGLAS HELICOPTER COMPANY (Hughes Helicopters, Inc.): Amendment 39-5127 as amended by Amendment 39-5463. Applies to all Model 369A (OH-6A Military), 369D, 369E, 369F, 369FF, 369H, 369HE, 369HM, and 369HS series helicopters, certificated in all categories, equipped with McDonnell Douglas Helicopter Company (MDHC) tail rotor blades, Part Numbers (P/N) 369D21606, 369D21613-11, 369D21613-41, 369D21613-51, 369D21615, 369A1613-7, 369A1613-503, and 421-088.

Compliance: Required as indicated, after September 19, 1985, by all operators affected by Amendment 39-5127, unless already accomplished.

Compliance: Required as indicated, after the effective date of this amendment for operators with additional tail rotor blades and additional helicopter models 369F and 369FF affected by this amendment, unless already accomplished.

To prevent possible loss of tail rotor control, accomplish the following:

(a) Within the next 100 hours' time in service after the effective date of this AD, perform a one-time dye penetrant and tap test inspection on the affected tail rotor blades listed on page 1 of the following service information notices in accordance with procedures detailed in paragraphs a through l of the "PROCEDURES" section of Part I of Hughes Service Information Notices (SIN) DN-130.1, EN-19.1, FN-17, HN-197.1 dated April 15, 1986, or an FAA-approved equivalent. Model 369A (OH-6A) is to comply with Hughes SIN HN-197.1. NOTE: If desired, an alternate tap test tool to the one specified in paragraph h may be used.

(b) Before the first flight of each day after the effective date of this AD, visually check each tail rotor blade abrasion strip for any evidence of bond failure along the entire abrasion strip/airfoil bond line and at the blade tip using the procedure specified in Part II, paragraph a, Hughes SIN's DN-130.1, EN-19.1, FN-17, HN-197.1, dated April 15, 1986, or an FAA-approved equivalent.

(c) If during the check of paragraph (b) debonding along the abrasion strip/bond or blade tip is suspected, inspect the tail rotor blade prior to further flight in accordance with Part II, paragraph b, of Hughes SIN's DN-130.1, EN-19.1, FN-17, HN-197.1, dated April 15, 1986, or an FAA-approved equivalent.

(d) Remove from service all tail rotor blades where void indication or bond separation is noted.

NOTE: Discrepant tail rotor blades may be returned to service after being repaired in accordance with FAA-approved data.

(e) Alternative inspections, modifications, or other actions which provide an equivalent level of safety may be used when approved by the Manager, Western Aircraft Certification Office, Hawthorne, California.

(f) The check required by paragraph (b) of this AD may be performed by the pilot and must be recorded in accordance with FAR Section 91.173(a)(2)(v).

(g) Special flight permits may be issued in accordance with FAR Sections 21.197 and 21.199 to ferry aircraft to a maintenance base in order to comply with the requirements of this AD.

The manufacturer's specifications and procedures shall be done in accordance with Hughes SIN's DN-130.1, EN-19.1, FN-17, and HN-197.1, April 15, 1986. This incorporation by reference was approved by the Director of the FEDERAL REGISTER in accordance with 5 U.S.C. 552(a)(1). Copies may be obtained from McDonnell Douglas Helicopter Company, 5000 E. McDowell Road, Mesa, Arizona 85205. These documents may be examined at the Office of the Regional Counsel, FAA, Southwest Region, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas 76106, or at the Office of the Federal Register, 1100L Street, NW., Room 8401, Washington, D.C.

This amendment becomes effective December 1, 1986, except for those owners/operators affected by Amendment 39-5127 who must comply with the dates and requirements of Amendment 39-5127.

This amendment amends Amendment 39-5127 (50 FR 36990), AD 85-18-02, which became effective September 19, 1985.

FOR FURTHER INFORMATION CONTACT:

Mr. Jerry Sullivan, Aerospace Engineer, Western Aircraft Certification Office, Airframe Section, ANM-172W, Federal Aviation Administration, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1166.

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86-25-01 COLLINS AVIONICS DIVISION/ROCKWELL INTERNATIONAL: Priority letter issued December 5, 1986. Applies to Model 51RV-4 VOR/ILS Navigation Receivers, Part Number 622-3255-XXX, Serial Number 5960 thru and including 7277, certificated to the applicable requirements of Technical Standard Orders C34c, C36c and C40a.

Compliance: Required as indicated in the body of this AD unless already accomplished.

To prevent deviation output signal oscillation that may cause undetected erroneous VOR and ILS localizer deviation display, flight director commands, and/or autopilot tracking, accomplish the following:

(a) For Model 51RV-4 navigation receivers not installed in an aircraft, prior to further use, modify the unit in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986.

(b) For Model 51RV-4 navigation receivers installed in an aircraft, accomplish the following:

(1) For installations approved for Category II, III, and/or autoland operations; within three calendar days after the effective date of this AD, fabricate and install on the instrument panel adjacent to the receiver control head and visible to the pilots the following placard using letters of a minimum 0.10 inch in height: "CATEGORY II/III/AUTOLAND" (as appropriate) "OPERATIONS PROHIBITED," and operate the aircraft accordingly. The placard required by this paragraph may be installed by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(2) Within three calendar days after the effective date of this AD, fabricate and install on the instrument panel adjacent to the receiver control head and visible to the pilots the following placard using letters of a minimum 0.10 inch in height: "AP/FD NOT TO BE COUPLED TO VOR/LOC," and operate the aircraft accordingly. The placard required by this paragraph may be installed by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(3) Within three calendar days after the effective date of this AD, unless already verified within the preceding two calendar days prior to the effective date of this AD; verify localizer centering using a calibrated reference signal or operational ILS localizer signal. This test may be accomplished by alignment of the aircraft on the centerline of a runway served by an ILS signal and observing the HSI (CDI) centering is within two needlewidths of center. Verify VOR centering by using a calibrated reference signal or approved VOR test location (VOT) and observing the HSI (CDI) centering is within ±2 1/2 degrees. These tests must be accomplished with the receiver installed in the aircraft in its normal configuration. If either test produces unsatisfactory results,

the navigation receiver must be removed from service. These tests may be accomplished by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(4) Within 30 calendar days after the effective date of this AD, modify the effected receiver in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986, or replace with a serviceable unit.

(5) Upon modification of the navigation receiver in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986, the requirements of paragraphs (b)(1), (b)(2), and (b)(3) of this AD no longer apply.

(c) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 under visual meteorological conditions to a location where this AD can be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Collins Avionics Division, 400 Collins Road NE, Cedar Rapids, Iowa 52498; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This airworthiness directive is effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Ralph W. Rissmiller, Jr., Aerospace Engineer, ACE-130W, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

86-25-04 FAIRCHILD AIRCRAFT CORPORATION: Amendment 39-5485. Applies to Model SA 227 (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Revise the airplane Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POH/AFM. Appendix 1 procedures supersede any other POH/AFM procedures which may be contradictory.

NOTE: Automatic-relite ignition is a system which automatically energizes engine ignition without pilot action when engine RPM or torque decays below a specified level, and de-energizes engine ignition when RPM or torque exceeds the specified level. It is not synonymous with CONTINUOUS IGNITION.

(b) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent method of compliance with this AD, if used, must be approved by contacting the Manager, Airplane Certification Branch, ASW-150, Rotorcraft Certification Directorate, P.O. Box 1689, Fort Worth, Texas 76101; Telephone (817) 877-5150.

All persons affected by this directive may obtain copies of the document referred to herein upon request to GTEC, P.O. Box 5217, Phoenix, Arizona 85010; Telephone (602) 231-1000; or Fairchild Aircraft Corporation, P.O. Box 32486, San Antonio, Texas 78284; Telephone (512) 824-9421.

This amendment becomes effective on December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, Central Region, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

APPENDIX 1

Supplement to the POH/AFM
Fairchild Models SA 227-TT, SA 227-AT
and SA 227-AC Airplanes

The IGNITION MODE switches shall be selected to OVERRIDE or, for those aircraft which have the auto-relite system installed, CONTINUOUS or AUTO during all operations in actual or potential icing conditions described herein:

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

*(3) Before selecting ANTI-ICE, when ice has accumulated.

(4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to an ENGINE HEAT position. If the engine runs satisfactorily, switch the second ENGINE system to an ENGINE HEAT position and check that the second engine continues to run satisfactorily.

For the purpose of this supplement, the following definition applies:

"Potential icing conditions in precipitation or visible moisture meteorological conditions:

(1) Begin when the OAT is +5°C (+41°F) or colder, and

(2) End when the OAT is +10°C (+50°F) or warmer."

The procedures and conditions described in this appendix supersede any other POH/AFM procedures and conditions which may be contradictory.

86-25-06 BELLANCA: Amendment 39-5489. Applies to the following models and serial numbered airplanes, certificated in any category, not equipped with an FAA approved drain valve for each wing main fuel tank and each wing auxiliary fuel tank:

MODEL	SERIAL NUMBERS (S/N)
17-30	All
17-30A	S/Ns 30-263 thru 30-977
17-31	All
17-31A	S/Ns 32-15 thru 32-172
17-31TC	All
17-31ATC	S/Ns 31-004 thru 31-155

Note: The serial numbers listed above may be prefixed by a two-digit number indicating the last two digits of the year of manufacture.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine power loss due to the accumulation of water or other contaminants in the fuel system, accomplish the following:

(a) For each wing main fuel tank and each wing auxiliary fuel tank not having an FAA approved drain valve of any style, install a flush quick drain valve as follows:

(1) Drain the fuel tank.

(2) Remove the fuel tank drain plug, AN 932-2, from the drain boss at the bottom aft portion of the fuel tank. For tanks comprised of interconnected cells, each cell having its own drain boss, remove the drain plug from the inboard cell of the tank.

(3) Install a flush quick drain valve, P/N F391-18 or equivalent.

Note: These pipe thread valves produced by Manufacturing Division, Inc. are available from Bellanca, Inc., Post Office Box 964, Alexandria, Minnesota 56308; Telephone (612) 762-1501.

(4) Refuel the tank and check for leaks.

(b) Fabricate and install a permanent placard in full view of the pilot, using letters with minimum 1/10 inch height, which states the following: "DRAIN ALL FUEL SUMPS BEFORE FIRST FLIGHT OF EACH DAY."

(c) The requirements of paragraph (b) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; Telephone (312) 694-7357.

This amendment becomes effective on December 22, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Ty Krolicki, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; Telephone (312) 694-7032.

86-25-07 ROLLADEN-SCHNEIDER FLUGZEUGBAU GmbH: Amendment 39-5487. Applies to Model LS-6, all serial numbers.

Compliance is required prior to further flight, after the effective date of this AD, unless already accomplished.

To prevent possible damage of the control stick, accomplish the following:

a) Remove Bezel from airspeed indicator and mask out the red arc with tape that would not interfere with airspeed indicator needle and readability of the instrument.

b) Replace Bezel to airspeed indicator and mark a red radial line on the face of the Bezel 0.05" wide, 0.30" long at 200 km/h (108 kts) establishing a new maximum airspeed limit.

c) Install a placard on the instrument panel in clear view of the pilot which states:

"Maximum Airspeed (IAS): 200 km/h (108 kts)."

d) On existing placard mask out with tape the yellow arc limitations 108 - 146 kts, and the following red arc airspeed indicator markings:

Vne 6500	Ft	146 kts
Vne 6501-9800	Ft	139 kts
Vne 9801-19700	Ft	118 kts

e) Flight manual pages 2.2, Limitations; page 2.3, Airspeed Indicator Markings; page 2.7, Placards, are obsolete.

f) Attach a copy of this Airworthiness Directive to the Flight Manual.

NOTE: Rolladen-Schneider Technical Bulletin No. 6009 dated July 7, 1986, applies to this AD.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, Brussels, Belgium 09667-1011; telephone 513.38.30 Ext 2710, or the Manager, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone (516) 791-6220.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the AD can be accomplished.

This amendment becomes effective December 30, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, Telephone 513.38.30 Ext. 2710, or Alfred A. Maila, New York Aircraft Certification Office, 181 S. Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone 516-791-6220.

PARA-FLITE, INC.
Airworthiness Directive
Final Copy of Letter
VOLUME I

86-22-07 PARA-FLITE, INCORPORATED: Amendment 39-5486. Applies to Swift Reserve Canopy P/N 82700, Serial Numbers R3-2750 through R3-3471.

Compliance is required before further use after the effective date of this AD, unless already accomplished.

To prevent the possibility of the applicable canopies performing below their standards on rate of descent, forward speed and flare capability perform the following:

(a) Inspect and modify the canopies in accordance with Para-Flite, Incorporated Drawing 886028 dated January 17, 1986.

(b) Do not use or repack the affected canopies unless paragraph (a) has been accomplished.

NOTE: Para-Flite, Incorporated recall notice dated January 17, 1986, is applicable.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, New York Aircraft Certification Office, Aircraft Certification Division, Federal Aviation Administration, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

Para-Flite, Incorporated Drawing 886028 dated January 17, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Para-Flite, Incorporated, 5800 Magnolia Avenue, Pennsauken, New Jersey 08109-1399. This document also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Room 311, Docket Number 86-ANE-16, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, Brussels, Belgium 09667-1011; telephone 513.38.30 Ext 2710, or the Manager, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone (516) 791-6220.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the AD can be accomplished.

This amendment becomes effective December 29, 1986.

FOR FURTHER INFORMATION CONTACT:
C. Kallis, ANE-173, New York Aircraft Certification Office, Aircraft Certification Division, Federal Aviation Administration, 181 South Franklin Avenue, Valley Stream, New York 11581.

ALLISON
Airworthiness Directive
Correction
VOLUME I

86-20-13 ALLISON GAS TURBINE DIVISION, GENERAL MOTORS CORP. (ALLISON, formerly DETROIT DIESEL ALLISON): Amendment 39-5465. Applies to Allison Model 250-C28 and -C30 Series engines installed in, but not limited to, Bell Model 206L-1, Messerschmitt-Boelkow-Blohm GmbH BO 105 LS A-1, Sikorsky Model S-76A, Bell Model 206L-1, modified to incorporate the Allison 250-C30 engine, Bell Model 206L-3, and McDonnell Douglas Helicopter Company (Hughes) Model 369F and 369FF aircraft.

The following engine models and turbine serial numbers are affected:

ENGINE MODEL	TURBINE SERIAL NUMBER
250-C28B	CAT 70001 thru 70802 and 70804
250-C28C	CAT 28001 thru 28046
250-C30 Series	CAT 90001 thru 95436 and 95438

EXCEPT existing Model 250-C28 and 250-C30 Series engines which have incorporated Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, or the following FAA approved equivalents:

Allison Message THO-2639W-RFR-85 dated February 7, 1985

Allison C28 Overhaul Manual Temporary Revision 72-7, Page 12 dated January 22, 1986

Allison C30 Overhaul Manual Revision dated July 1, 1985, Section 72-50-00, Paragraph F(7), page 524

Allison Commercial Service Letter 250-C28/C30 CSL-2071/3073 dated June 1, 1985

Compliance is required as indicated unless already accomplished.

To prevent excessive wear and/or fretting damage on the external splines of the turbine spline adapter or the aft splines of the turbine-to-compressor coupling shaft, which can progress to a disconnect and subsequent overspeed gas generator turbine failure/uncontained failure, accomplish the following:

(a) Within the next five hours time-in-service after the effective date of this AD, but not later than December 20, 1986, for inservice engines, inspect the gas generator turbine spline adapter locknut torque in accordance with Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, or FAA approved equivalent.

(b) Before initial flight, for uninstalled affected turbine assemblies, inspect the gas generator turbine spline adapter locknut torque in accordance with Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, or FAA approved equivalent.

NOTE: The compliance requirements of this AD were previously published in Allison Commercial Service Letter 250-C28/C30 CSL-A-2084/3087, Revision 1, dated September 29, 1986, FAA approved by the Manager, Chicago Aircraft Certification Office.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Allison Commercial Engine Alert Bulletin 250-C28/C30 CEB-A-72-2132/3146 dated October 1, 1985, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552 (a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Allison Gas Turbine Division, General Motors Corp., P.O. Box 420, Indianapolis, Indiana 46206-0420. This document also may be examined at the Office of Regional Counsel, FAA, ATTN: Rules Docket No. 86-ANE-41, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective December 3, 1986, as to all persons except those persons to whom it was made immediately effective by Priority Letter AD No. 86-20-13, issued October 8, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Royace H. Prather, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone 312-694-7132.

FAIRCHILD
Airworthiness Directive
Correction
VOLUME I

81-26-05 R1 FAIRCHILD AIRCRAFT CORP.: Amendment 39-4286 as amended by Amendment 39-5469. Applies to Models SA26T (S/N T26-2 through T26-99), and SA26-AT (S/N T26-100 through T26-999) airplanes certificated in any category.

Compliance: Required within the next 25 hours time in service after the effective date of this AD, and thereafter at intervals not to exceed 200 hours time-in-service since last compliance, unless already accomplished.

To prevent a failure at the lower forward wing station 99 attach joint, accomplish the following:

(a) In accordance with Fairchild Service Bulletin 26-57-40-015, issued January 18, 1972, as revised June 26, 1986:

(1) Remove the lower forward wing station 99 attach joint coverplate and wing attach bolt.

(2) Inspect the lower forward wing station 99 attaching fitting for deterioration and cracks and, prior to further flight, replace damaged parts with new parts of the same part numbers.

(3) Inspect the lower forward wing station 99 attach bolt for identifying part number, deterioration and cracks and, prior to further flight, replace any damaged bolt or bolt not identified as P/N MS20014-29 bolt with a new P/N MS20014-29 bolt.

(b) When the wing has been modified by (STC) SA1830NM, "Installation of Wing Spar Reinforcement," the inspection intervals required by this AD may be increased from 200 hours time-in-service to 1,500 hours time-in-service or every 3 years since last compliance, whichever occurs first.

(c) The intervals between repetitive inspections required by this AD may be adjusted up to 10 percent of the specified interval to allow accomplishing these inspections concurrent with other scheduled maintenance of the airplane.

(d) A special flight permit may be issued in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent method of compliance with this AD may be used when approved by the Manager, Airplane Certification Branch, ASW-150, Southwest Regional Office, FAA, Fort Worth, Texas 76101; Telephone (817) 624-5150.

All persons affected by this AD may obtain copies of the documents referred to herein upon request to Fairchild Aircraft Corp., Post Office Box 32486, San Antonio, Texas 78284; and AviaDesign, Inc., Hangar 1, 173 Durley Avenue, Camarillo Airport, Camarillo, California 93010; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This AD revises AD 81-26-05, Amendment 39-4286, which became effective December 30, 1981.

This amendment, 39-5469, becomes effective on December 29, 1986.

FOR FURTHER INFORMATION CONTACT:

Michele M. Owsley, Airplane Certification Branch, Aircraft Certification Division, ASW-150, Federal Aviation Administration, Post Office Box 1689, Fort Worth, Texas 76101; Telephone (817) 624-5161.

AEROSPATIALE
Airworthiness Directive
Revision
VOLUME I

86-19-15 R1 SOCIETE NATIONALE INDUSTRIELLE AEROSPATIALE (SNIAS): Amendment 39-5470. Applies to Aerospatiale Model AS 350 and AS 355 series helicopters, certificated in any category.

Compliance is required as indicted unless already accomplished.

To prevent failure of the main rotor head sleeves, accomplish the following:

(a) For AS 350B and AS 350D helicopters, accomplish the following:

(1) Within the next 100 hours' time in service after the effective date of this AD, replace, with serviceable parts, those main rotor head sleeves (Part Numbers (P/N) 350A31.1831.00, .01, .04, .05, .06, and .07) which have 3,900 or more hours' time in service.

(2) For those main rotor head sleeves having less than 3,900 hours' time in service on the effective date of this AD, replace with serviceable parts before 4,000 hours' time in service.

(b) For AS 355 series helicopters, accomplish the following:

(1) Within the next 100 hours' time in service after the effective date of this AD, replace, with serviceable parts, those main rotor head sleeves (P/N's 350A31.1831.04, .05, .06, and .07) which have 1,400 or more hours' time in service.

(2) For those main rotor head sleeves having less than 1,400 hours' time in service after the effective date of this AD, replace with serviceable parts before 1,500 hours' time in service.

(c) In the event of sudden or repeated occurrence of a severe tracking defect, accomplish the following before the next flight:

(1) Remove blades and visually check to determine if outboard sleeve bushes are separated; and

(2) If bush separation is found, remove and replace sleeves.

(d) An alternate method of compliance with this AD, which provides an equivalent level of safety, may be used when approved by the Manager, Aircraft Certification Division, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, or by the Manager, Aircraft Certification Office, AEU-100, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium.

(e) In accordance with FAR sections 21.197 and 21.199, flight is permitted to a base where the maintenance required by this AD may be accomplished.

NOTE: Aerospatiale Telex Services 01.13 and 01.16 and French AD's 86-35-28(B) and 86-57-44(B) pertain to this subject.

This amendment becomes effective December 18, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 86-19-15 issued September 24, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

John Varoli, Manager, Aircraft Certification Office, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium, APO NY 09667, telephone 513.38.30; or R.T. Weaver, Rotorcraft Standards Staff, ASW-110, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone (817) 624-5122.

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MITSUBISHI
Airworthiness Directive
VOLUME I

86-26-02 MITSUBISHI HEAVY INDUSTRIES, LTD. and MITSUBISHI AIRCRAFT INTERNATIONAL, INC.: Amendment 39-5498. Applies to Models MU-2B-10, -15, -20, -25, -26, -26A, -30, -35, -36, -36A, -40, and -60 (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 100 hours time-in-service (TIS) after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Modify the airplanes not equipped with manual ignition switches.

(1) For MU-2B-10, -15, -20, -25, -26 (S/N 008 through 347 except S/N 313, 321), -30, -35, and -36 (S/N 501 through 696 except S/N 652, 661), modify the airplane as described in MHI SR 066B dated November 13, 1986, Instructions 1.0 through 8.0. Compliance with GTEC S/B TPE/TSE 331-74-0003 is optional.

(2) For MU-2B-25, -26, -26A (S/Ns 313SA, 321SA, 348SA through 364SA, and 366SA through 394SA), -35, and -36A (S/Ns 652SA, 661SA, 697SA through 699SA and 701SA through 730SA), modify the airplane as described in MAI SR 040/74-001, Revision A, dated December 11, 1986, Accomplishment Instructions paragraphs A-G. Compliance with GTEC S/B TPE/TSE 331-74-0003 is optional.

(b) For all airplanes, revise the airplane Pilot's Operating Manual and Airplane Flight Manual (POM/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POM/AFM. Appendix 1 procedures supersede any other POM/AFM procedures which may be contradictory.

(c) The requirements of paragraph (b) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent means of compliance with this AD may be used if approved by the Manager, Wichita Aircraft Certification Office, ACE-115W, 1800 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4400 for MAI airplanes, or the Western Aircraft Certification Office, ANM-170W, 15000 Aviation Boulevard, Hawthorne, California 90261; Telephone (213) 297-1351 for MHI airplanes.

READEX MICROFICHE best copy available

All persons affected by this directive may obtain copies of the documents referred to herein upon request to GTEC, P.O. Box 5217, Phoenix, Arizona 85010; Telephone (602) 231-1000; Beech Aircraft Corporation, P.O. Box 85, Wichita, Kansas 67201; Telephone (316) 681-9111; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, Central Region, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

APPENDIX 1

Supplement to the POM/AFM, Mitsubishi MU-2B-10, -15, -20, -25, -26, -26A, -30, -35, -36, -36A, -40, and -60

The CONTINUOUS IGNITION/MAN IGN switches shall be selected to ON during all operations in actual or potential icing conditions described herein:

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

*(3) Before selecting ANTI-ICE, when ice has accumulated.

(4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to the ANTI-ICE ON position. If the engine runs satisfactorily, switch the second ENGINE system to the ANTI-ICE ON position and check that the second engine continues to run satisfactorily.

CAUTION

Flight in actual or potential icing conditions will be limited by duty cycle of the ignition system. Ignition system time limits must be observed to prevent exceeding duty cycle times. Operator should verify these limits for his particular installation.

For the purpose of this supplement, the following definition applies:

"Potential icing conditions in precipitation or visible moisture meteorological conditions:

(1) Begin when the OAT is plus 5 degrees C (plus 41 degrees F) or colder, and

(2) End when the OAT is plus 10 degrees C (plus 50 degrees F) or warmer."

The procedures and conditions described in this appendix supersede any other POM/AFM procedures and conditions which may be contradictory.

APPENDIX I

86-26-04 CESSNA: Amendment 39-5503. Applies to the following airplanes certificated in any category:

MODELS	SERIAL NUMBERS
120, 140	All
140A	All
150	7001 thru 17,999;59001 thru 59018
150A, 150B, 150C, 150D 150E, 150F, 150G, 150H 150J, 150K, 150L	15059019 thru 15072003
F150F, F150G, F150H	F150-0001 thru F150-0529
F150K	F15000530 thru F15000658
170, 170A, 170B	All
172, 172A	28,000 thru 29,999 36,000 thru 36,999 46,001 thru 47,746
172B, 172C, 172D, 172E 172F, 172G, 172H, 172I 172J, 172K	17247747 thru 17259223
F172D, F172E, F172F, F172G	F172-0001 thru F172-0654
F172H, F172K	F17200655 thru F17200754
FR172E, FR172F, FR172G	FR17200001 thru FR17200225
P172	All
175, 175A, 175B, 175C	All
177, 177A, 177B	17700001 thru 17701530
180, 180A	30000 thru 32999
180A, 180B, 180C, 180D, 180E, 180F	50,000 thru 50911
180G, 180H	18050912 thru 18052175
182, 182A, 182B, 182C	33,000 thru 34999 51,001 thru 53,007
182D, 182E, 182F 182G, 182H, 182J 182K, 182L, 182M, 182N	18253008 thru 18260445
185, 185A, 185B, 185C 185D, 185E, A185E	185-0001 thru 185-1599
A185E	18501600 thru 18501832
190, 195, 195A, 195B	All
205, 205A	All
206	All
U206, U206A, U206B, U206C, U206D, TU206A, TU206B, TU206C, TU206D	206-0276 thru 206-1444
U206E, TU206E	20601445 thru 20601587
P206, P206A, P206B, R206C, P206D, TP206A, TP206B, TP206C, TP206D	P206-0001 thru P206-0603

MODELS	SERIAL NUMBERS
P206E, TP206E	P20600604 thru P20600647
207, T207	2070001 thru 20700190
210	57001 thru 57575
210A, 210B, 210C, 210D 210E, 210F, 210G, 210H, 210J, 210K, T210K	21057576 thru 21059351
T210G, T210H, T210J	All
336	All
337, 337A, 337B, 337C 337D, 337E, T337B, T337C T337, T337E	33700001 thru 33701316

Compliance: Required within the next 25 hours time-in-service (TIS) after the effective date of this AD, unless already accomplished.

To prevent slippage of the pilot/co-pilot shoulder harnesses, accomplish the following on airplanes which have had the shoulder harnesses installed by any of the following Cessna Accessory Kits (AK):

AK140-10	AK182-75	AK210-172
AK150-7	AK195-10	AK210-173
AK150-121	AK210-77	AK210-174
AK170-10	AK210-93	AK336-32
AK177-10	AK210-171	AK336-36
		AK336-103

(a) Inspect the upper shoulder harness adjuster in accordance with Cessna Single Engine Service Bulletin, SEB86-8 or Cessna Multi-Engine Service Bulletin, MEB86-22, as appropriate, for the presence of a retainer spring. If installed, prior to further flight, remove the spring and stamp out the -401 identification number in accordance with the service bulletin instructions.

NOTE: There are two adjusters in each shoulder harness assembly. This AD applies only to the upper adjuster.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) The holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) on any airplane owned or operated by him may conduct the inspections and modifications required by this AD on any airplane not used in air carrier service. The person accomplishing this AD must make the appropriate maintenance record entry as prescribed by FAR 91.173.

(d) Any equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, Federal Aviation Administration, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Cessna Aircraft Company, Customer Service, P.O. Box 1521, Wichita, Kansas 67201; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective January 6, 1987.

FOR FURTHER INFORMATION CONTACT:

Douglas W. Haig, Aerospace Engineer, FAA, ACE-120W, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4409.

COLLINS
Airworthiness Directive
Final Copy of Letter
VOLUME I

86-25-01 COLLINS AVIONICS DIVISION/ROCKWELL INTERNATIONAL: Amendment 39-5502. Applies to Model 51RV-4 VOR/ILS Navigation Receivers, Part Number 622-3255-XXX, Serial Number 5960 thru and including 7277, certificated to the applicable requirements of Technical Standard Orders C34c, C36c and C40a.

Compliance: Required as indicated in the body of this AD unless already accomplished.

To prevent deviation output signal oscillation that may cause undetected erroneous VOR and ILS localizer deviation display, flight director commands, and/or autopilot tracking, accomplish the following:

(a) For Model 51RV-4 navigation receivers not installed in an aircraft, prior to further use, modify the unit in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986.

(b) For Model 51RV-4 navigation receivers installed in an aircraft, accomplish the following:

(1) For installations approved for Category II, III, and/or autoland operations; within three calendar days after the effective date of this AD, fabricate and install on the instrument panel adjacent to the receiver control head and visible to the pilots the following placard using letters of a minimum 0.10 inch in height: "CATEGORY II/III/AUTOLAND" (as appropriate) "OPERATIONS PROHIBITED." and operate the aircraft accordingly. The placard required by this paragraph may be installed by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(2) Within three calendar days after the effective date of this AD, fabricate and install on the instrument panel adjacent to the receiver control head and visible to the pilots the following placard using letters of a minimum 0.10 inch in height: "AP/FD NOT TO BE COUPLED TO VOR/LOC." and operate the aircraft accordingly. The placard required by this paragraph may be installed by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(3) Within three calendar days after the effective date of this AD, unless already verified within the preceding two calendar days prior to the effective date of this AD; verify localizer centering using a calibrated reference signal or operational ILS localizer signal. This test may be accomplished by alignment of the aircraft on the centerline of a runway served by an ILS signal and observing the HSI (CDI) centering is within two needlewidths of center. Verify VOR

centering by using a calibrated reference signal or approved VOR test location (VOT) and observing the HSI (CDI) centering is within plus/minus 2 1/2 degrees. These tests must be accomplished with the receiver installed in the aircraft in its normal configuration. If either test produces unsatisfactory results, the navigation receiver must be removed from service. These tests may be accomplished by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(4) Within 30 calendar days after the effective date of this AD, modify the effected receiver in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986, or replace with a serviceable unit.

(5) Upon modification of the navigation receiver in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986, the requirements of paragraphs (b)(1), (b)(2), and (b)(3) of this AD no longer apply.

(c) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 under visual meteorological conditions to a location where this AD can be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Collins Avionics Division, 400 Collins Road NE, Cedar Rapids, Iowa 52498; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 6, 1987, to all persons except those to whom it has already been made effective by priority letter from the FAA dated December 5, 1986, and is identified as AD 86-25-01.

FOR FURTHER INFORMATION CONTACT:

Ralph W. Rissmiller, Jr., FAA, Aerospace Engineer, ACE-13CW, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

SIKORSKY
Airworthiness Directive
VOLUME I

86-25-05 SIKORSKY AIRCRAFT: Amendment 39-5471. Applies to Model S-58A, B, C, D, E, F, G, H, J, BT, DT, ET, FT, HT, and JT, CH-34 series, HH-34 series, SH-34 series, UH-34 series, and VH-34 series helicopters certificated in any category and fitted with tail rotor intermediate gearbox input bevel pinions Part Number (P/N) S1635-64114-0 and output bevel gears P/N S1635-64115-0. (See Note 1 for exempt pinion and gear configurations.)

Compliance is required as indicated, unless already accomplished.

(a) To preclude failure of pinions or gears identified above, accomplish the following:

(1) For applicable pinions or gears that have attained 750 or less hours' time in service on the effective date of this AD, replace with a serviceable pinion or gear as required, prior to their accumulation of 1,000 hours' time in service.

(2) For pinions or gears that have attained more than 750 hours' time in service on the effective date of this AD, replace with a serviceable pinion or gear as required, within the next 250 hours' time in service.

(3) Operators who have not kept records of hours' time in service on individual intermediate gearbox bevel gears and bevel pinions shall substitute rotorcraft hours' time in service in lieu thereof.

NOTE 1. This AD is not applicable to helicopters fitted with tail rotor intermediate gears which utilize the following pinion and gear combinations:

(a) P/N 1635-64114-101 pinion and P/N S1635-64115-101 gear.

(b) P/N 1635-64114-102 pinion and P/N S1635-64115-102 gear.

(c) P/N 1635-64114-0 pinion and P/N S1635-64115-0 gear reworked in accordance with Sikorsky Service Bulletin 58B35-26. This rework includes remarking P/N S1635-64114-0 pinion and P/N S1635-64115-0 gear with TS-200-1 and TS-200-2, respectively.

NOTE 2. Refer to the Equalized Inspection and Maintenance Program Manual SA 4047-20, Revision 10, dated December 14, 1984, or later FAA-approved revision for retirement times assigned to new or modified bevel pinions and bevel gears for the Model S-58BT, DT, ET, FT, HT, and JT helicopters, and to the Maintenance Manual SA 4045-15 Section IV, revised December 14, 1984, or later FAA-approved revision for retirement times assigned to new or modified bevel pinions and gears for the Model S-58A, B, C, D, E, F, G, H, and J helicopters.

Upon request, an alternate method of compliance which provides an equivalent level of safety may be approved by the Manager, Boston Aircraft Certification Office, ANE-150, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Boston Aircraft Certification Office, ANE-150, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803 may adjust the compliance time specified in this AD.

This amendment becomes effective on January 5, 1987.

FOR FURTHER INFORMATION CONTACT:

Wayne E. Gaulzetti, FAA, Boston Aircraft Certification Office, ANE-153, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (617) 273-7102.

CONTINENTAL
Airworthiness Directive
Revision
Priority Letter
VOLUME I

86-13-04 R2 TELEDYNE CONTINENTAL MOTORS (TCM): Amendment 39-5345 as amended by priority letter issued September 5, 1986, is further amended by priority letter issued December 24, 1986. Applies to cylinder assemblies (part number stamped on flange of cylinder) with P/N's 643985, 646100, 646101, 646652, 646652CP, 646657, .6657CP, 649162, 649162CP, 649169, 649169CP including all these numbers with all A dash numbers as a suffix, manufactured on or after January 1, 1985, with 485 total hours or less installed on, but not limited to, the following Teledyne Continental Motors (TCM) Engines:

NEW ENGINES	SERIAL NUMBERS
GTSIO-520-H	607068 thru 607070
-K	605164
-L	608669 thru 608673
-M	606979 thru 606997
-N	610450 thru 610462
TSIO-520-BE	528133 thru 528242, 528244 thru 528246, 528252 thru 528256, 528259, 528260, 528263, 528270
-CE	530045 thru 530127, 530131, 530132
-C	501603 thru 501610
-EB	510802 thru 510809
-G	507066
-H	506883 thru 506885
-M	520742 thru 520824, 520829 thru 520835, 520837, 520838
-NB	521585 thru 521615
-P	513908 thru 513910
-R	522588 thru 522602, 522604, 522605
-UB	527063 thru 527080
-VB	529014 thru 529060
-WB	518895 thru 518906
IO-520-BB	578073, 578084 thru 578151, 578155, 578156, 578166
-CB	576237 thru 576272
-D	575717, 575747 thru 575806
-E	556594 thru 556603
-F	574844 thru 574988
-K	557516 thru 557518
-L	577121 thru 577147, 577149 thru 577153
-MB	575043 thru 575046
IO-550-B	675125 thru 675237, 675239 thru 675244, 675246 thru 675256, 675258 thru 675266, 675273, 675274, 675277, 675278
-C	676156 thru 676231, 676233 thru 676248, 676250 thru 676271

REBUILT ENGINES

GTSIO-520-C	155546 thru 155550
-D	219429 thru 219435
-H	235236 thru 235290, 235293 thru 235298, 267000 thru 267003
-K	226106 thru 226110
-L	245882 thru 245990, 245992 thru 246008, 246011 thru 246014, 246016 thru 246021, 246023, 246024
GTSIO-520-M	243217 thru 243364, 243366, 243367, 243369 thru 243381
-N	241300, 265000 thru 265039, 265041
TSIO-520-AF	245205
-BB	236937 thru 236951
-B	176485 thru 176522
-C	178289 thru 178297
-EB	242984 thru 242999
-E	183816 thru 183939, 183941 thru 183943, 183947
-G	216022 thru 216025
-H	217173 thru 217187
-J	218907 thru 218924
-K	224583, 224584
-LB	237237 thru 237241, 237245, 237246
-L	241883 thru 241900
-M	230223, 230225, 248601 thru 248628, 248632 thru 248638, 248642
-NB	244933 thru 244999, 266500, 266501, 266503 thru 266511, 266513 thru 266517, 266521, 266525
-N	228481 thru 228505, 228509 thru 228516
-P	236453 thru 236467
-R	245645 thru 245696
-T	239316 thru 239321
-UB	240981 thru 241000, 248851 thru 248854, 248858
-VB	248288 thru 248499, 266600 thru 266681, 266683 thru 266685, 266687, 266689, 266691, 266699 thru 266702,
-WB	248160 thru 248203, 248205 thru 248217
IO-520-A	112547 thru 112569
-BA	241763 thru 241800, 249251 thru 249425, 249427 thru 249429, 249433 thru 249443, 249445, 249446, 249448 thru 249453, 249457
-BB	236000, 236789, 248500 thru 248568, 248572, 248573, 248575
-B	234758

-CB	244047, 244067 thru 244110, 244112 thru 244123, 244126, 244127, 244130, 244131
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-M	235728 thru 235787, 235789 thru 235793
IO-550-B	249104 thru 249122

This priority letter AD is effective immediately upon receipt. Compliance is required within the next five flight hours after the effective date of this priority letter Ad, except as to those compliance requirements set forth in AD 86-13-04, dated June 20, 1986, and priority letter AD 86-13-04 R1, dated September 5, 1986, unless already accomplished.

To prevent possible cylinder head to barrel separation, engine failure and/or engine compartment fire, accomplish the following:

I. For the above cylinder assembly part numbers installed on engines including those serial numbered engines listed above:

(a) Determine the part number for each cylinder assembly (part number is stamped on flange of cylinder barrel) and the date of manufacture (month and year of manufacture are stamped underneath rocker cover in the face of the rocker shaft boss).

1. If the cylinder assembly part number and date of manufacture are as listed above, proceed with paragraphs (b), (c), (d), (e), and (f).

2. If the cylinder assembly part number and date of manufacture are not as listed above, proceed to paragraph (f). No further inspection are required by this priority letter AD.

(b) Visually inspect all cylinders for oil stains or leakage between the first and second barrel fins from the bottom of the head casting. The area of concern on direct drive engines is at the 12 o'clock position on the 1-3-5 cylinder side and the 6 o'clock position on the 2-4-6 side. On the GTSIO series engine, the area of concern is at the 6 o'clock position on the 1-3-5 cylinder side and the 12 o'clock position on the 2-4-6 cylinder side.

(c) Pressure check all cylinder assemblies using a differential compression tester. The piston should be as close to BDC (Bottom Dead Center) as possible to insure the piston and rings are below the inspection area specified in Paragraph (b) but still keeping both valves closed and maintaining pressure in the cylinder. With 80 PSIG (pounds per square inch gauge) air pressure in the cylinder, check the area specified in Paragraph (b) with a soap/water solution and inspect for any leakage.

(d) If any leakage is noted from the above inspection and/or pressure check, the cylinder assembly must be changed before further flight.

(e) This visual inspection and pressure check must be repeated at intervals not to exceed 50 flight hours until the last inspection and pressure check required by this priority letter AD has been accomplished. The last inspection and pressure check required by this priority letter AD must occur between 440 hours and 490 hours of cylinder operation. However, these repetitive inspections and pressure checks may be discontinued when suspect cylinder assemblies have been replaced with assemblies having a date of manufacture before January 1985 or by approved replacement cylinder assemblies having different part numbers.

(f) Make appropriate Engine Logbook entry.

II. For cylinder assemblies not installed on engines:

Confirm a manufacture date stamp of 1-85 (January 1985) or subsequent (month and year of manufacture are stamped underneath rocker cover in the face of the rocker shaft boss), then notify Teledyne Continental Motors for disposition and replacement.

NOTES: (a) Teledyne Continental Motors Service Bulletin No. M86-7, Rev. 5, dated 15 November 1986, addresses this subject.

(b) The manufacturer recommends continuing repetitive inspections at 100 hour intervals or at annual inspection.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where this priority letter AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, Atlanta Aircraft Certification Office, 1669 Phoenix Parkway, Suite 210, Atlanta, Georgia 30349.

FEDERAL REGISTER publication to follow.

This priority letter AD is effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:

Jerry C. Robinette, Aerospace Engineer, Propulsion Branch, ACE-140A, Atlanta Aircraft Certification Office, Federal Aviation Administration, 1669 Phoenix Parkway, Suite 210, Atlanta, Georgia 30349, telephone (404) 991-3810.

HUGHES
Airworthiness Directive
Correction
VOLUME I

85-18-02 R1 MCDONNELL DOUGLAS HELICOPTER COMPANY (Hughes Helicopters, Inc.): Amendment 39-5127 as amended by Amendment 39-5463. Applies to all Model 369A (OH-6A Military), 369D, 369E, 369F, 369FF, 369H, 369HE, 369HM, and 369HS series helicopters, certificated in all categories, equipped with McDonnell Douglas Helicopter Company (MDHC) tail rotor blades, Part Numbers (P/N) 369D21606, 369D21613-11, 369D21613-41, 369D21613-51, 369D21615, 369A1613-7, 369A1613-503, and 421-088.

Compliance: Required as indicated, after September 19, 1985, by all operators affected by Amendment 39-5127, unless already accomplished.

Compliance: Required as indicated, after the effective date of this amendment for operators with additional tail rotor blades and additional helicopter models 369F and 369FF affected by this amendment, unless already accomplished.

To prevent possible loss of tail rotor control, accomplish the following:

(a) Within the next 100 hours' time in service after the effective date of this AD, perform a one-time dye penetrant and tap test inspection on the affected tail rotor blades listed on page 1 of the following service information notices in accordance with procedures detailed in paragraphs a through l of the "PROCEDURES" section of Part I of Hughes Service Information Notices (SIN) DN-130.1, EN-19.1, FN-17, HN-197.1 dated April 15, 1986, or an FAA-approved equivalent. Model 369A (OH-6A) is to comply with Hughes SIN HN-197.1. NOTE: If desired, an alternate tap test tool to the one specified in paragraph h may be used.

(b) Before the first flight of each day after the effective date of this AD, visually check each tail rotor blade abrasion strip for any evidence of bond failure along the entire abrasion strip/airfoil bond line and at the blade tip using the procedure specified in Part II, paragraph a, Hughes SIN's DN-130.1, EN-19.1, FN-17, HN-197.1, dated April 15, 1986, or an FAA-approved equivalent.

(c) If during the check of paragraph (b) debonding along the abrasion strip/bond or blade tip is suspected, inspect the tail rotor blade prior to further flight in accordance with Part II, paragraph b, of Hughes SIN's DN-130.1, EN-19.1, FN-17, HN-197.1, dated April 15, 1986, or an FAA-approved equivalent.

(d) Remove from service all tail rotor blades where void indication or bond separation is noted.

NOTE: Discrepant tail rotor blades may be returned to service after being repaired in accordance with FAA-approved data.

(e) Alternative inspections, modifications, or other actions which provide an equivalent level of safety may be used when approved by the Manager, Western Aircraft Certification Office, Hawthorne, California.

(f) The check required by paragraph (b) of this AD may be performed by the pilot and must be recorded in accordance with FAR Section 91.173(a)(2)(v).

(g) Special flight permits may be issued in accordance with FAR Sections 21.197 and 21.199 to ferry aircraft to a maintenance base in order to comply with the requirements of this AD.

The manufacturer's specifications and procedures shall be done in accordance with Hughes SIN's DN-130.1, EN-19.1, FN-17, and HN-197.1, April 15, 1986. This incorporation by reference was approved by the Director of the FEDERAL REGISTER in accordance with 5 U.S.C. 552(a)(1). Copies may be obtained from McDonnell Douglas Helicopter Company, 5000 E. McDowell Road, Mesa, Arizona 85205. These documents may be examined at the Office of the Regional Counsel, FAA, Southwest Region, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas 76106, or at the Office of the Federal Register, 1100L Street, NW., Room 8401, Washington, D.C.

This amendment becomes effective December 9, 1986, except for those owners/operators affected by Amendment 39-5127 who must comply with the dates and requirements of Amendment 39-5127.

This amendment amends Amendment 39-5127 (50 FR 36990), AD 85-18-02, which became effective September 19, 1985.

FOR FURTHER INFORMATION CONTACT:

Mr. Jerry Sullivan, Aerospace Engineer, Western Aircraft Certification Office, Airframe Section, ANM-172W, Federal Aviation Administration, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1166.

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JULY 1986

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47-25-03	Superior (Culver)	2
47-25-04	Superior (Culver)	2
47-25-05	Superior (Culver)	2
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69-15-11	Fairchild ..... Superseded by 72-13-07	
69-16-02	Bell	32
69-16-03	Beech ..... Rescinded by 71-12-02	
68-16-05	Detroit Diesel	1
69-16-06	Beech ..... Rescinded by 71-12-02	
69-17-02	Bell	33
69-17-03	General Electric	2
69-18-01	Beech	23
69-18-02	Detroit Diesel	2
69-18-04	Detroit Diesel	4
69-18-05	Teledyne Continental	7
69-18-06	Beech ..... Rescinded by 71-12-02	
69-18-07	Beech ..... Rescinded by 71-12-02	
69-18-08	Beech ..... Rescinded by 71-12-02	
69-19-01	Pilatus	5
69-19-04	Slingsby	1
69-19-05	Dornier	2
69-19-07	SIAI-Marchetti	3
69-20-01	Pilatus	5
69-20-02	Maule	1
69-21-01	Hughes	6
69-22-02	Piper	46
69-23-01	Piper ..... Superseded by 72-14-05	
69-23-02	General Electric	2
69-23-03	Piper	47
69-23-05	Volkow	1
69-23-06	Pratt & Whitney	3
69-23-07	Beech ..... Rescinded by 71-12-02	
69-24-01	Aero Pegaso, Societa CARMAM ..... 1 &	1
69-24-02	Beech ..... Revised - See Book 2	
69-24-03	Marvel-Schebler, Equipment	2
69-24-04	Piper	46
69-24-05	Kollsman, Instruments	1
69-25-06	deHavilland (H.S.)	19
69-25-07	deHavilland (H.S.)	19
69-25-08	Avco Lycoming ... Revised-See Book 2	1
69-26-01	Short Bros.	1
69-26-02	deHavilland (H.S.)	20
69-26-03	Detroit Diesel	4
69-26-04	Beech Prop. ..... Superseded by 77-11-03	
69-26-07	Continental ..... Superseded by 71-11-04	
70-01-01	Beech ..... Superseded by 70-18-02	
70-01-02	Cessna	23
70-01-03	Hughes ..... Rescinded 4/25/72	
70-01-04	Hughes	7
70-02-01	Hartzell ..... Superseded by 73-10-03	
70-02-06	Pilatus Britten-Norman	1
70-02-07	Hughes ..... Deleted 3/9/81	
70-02-10	Schempp-Hirth	1
70-03-01	deHavilland (H.S.)	20
70-03-04	Cessna	23
70-03-05	Beech	25
70-03-06	Pilatus Britten-Norman	2
70-03-08	Piper ..... Superseded by 72-11-01	
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70-05-05	Gulfstream American (Grumman)	10
70-05-06	Hartzell	10
70-06-01	Bell ..... Superseded by 70-06-02	
70-06-02	Bell	33
70-06-04	Pilatus Britten-Norman	2
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70-07-01	deHavilland (H.S.)	21
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70-07-06	deHavilland (H.S.)	22
70-08-01	Hughes	7
70-08-02	Bell	34
70-09-02	Piper	48
70-09-05	Sikorsky	18
70-10-01	Beech	26
70-10-02	Pratt & Whitney	4
70-10-06	Cessna	24
70-10-07	deHavilland (H.S.)	22
70-10-08	Bell	34
70-11-02	Cessna ..... Superseded by 72-10-05	
70-11-04	Bell	36
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70-15-02	Cessna	24
70-15-03	Beech	27
70-15-04	British Aerospace (Handley Page)	1
70-15-05	Short Bros.	1
70-15-06	Hawker Siddeley . Superseded by 72-14-07	
70-15-07	deHavilland (N.S.)	22
70-15-08	deHavilland (N.S.)	23
70-15-12	Short Brothers	1
70-15-14	Beech Superseded by 71-12-04	
70-15-16	Cessna Superseded by 72-03-03	
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70-15-18	Mitchell, Instruments	1
70-16-01	Woodward, Equipment	1
70-16-03	Hartzell Superseded by 77-12-06	
70-16-05	Piper	49
70-16-07	Hughes	8
70-16-09	AiResearch, Garrett 1,	1
70-17-02	Univair (Mooney)	11
70-17-03	Hughes	9
70-17-04	S.O.C.A.T.A. (Morane Saulnier)	1
70-17-05	S.O.C.A.T.A. (Morane Saulnier)	1
70-17-06	S.O.C.A.T.A. (Morane Saulnier)	1
70-18-02	Beech Superseded by 78-22-05	
70-18-03	Pilatus	3
70-18-04	Fairchild	13
70-18-05	Piper	50
70-19-02	AiResearch	1
70-19-03	Dornier	2
70-20-01	SIAI Marchetti	3
70-20-02	S.O.C.A.T.A. (Morane Saulnier)	1
70-21-01	Dornier	2
70-21-02	deHavilland (N.S.)	24
70-21-03	Entwicklungsgesellschaft	1
70-21-04	deHavilland (N.S.)	24
70-21-05	deHavilland (N.S.)	25
70-22-01	Beech	27
70-22-02	Airborne Manufacturing, Equipment	1
70-22-03	Brest Superseded by 72-13-01	
70-22-04	Wood Electric, Equipment	1
70-22-05	Piper	50
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70-23-05	Piper (Aerostar)	51
70-23-06	Brest Superseded by 75-27-10	
70-24-04	Cessna	25
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70-25-09	Piper (Aerostar)	52
70-26-02	Woodward, Equipment	1
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71-01-01	DeHavilland Superseded by 83-10-03	
71-01-03	Cessna	1
71-01-04	Piper	1
71-02-01	Air Cruisers, Equipment	1
71-02-05	Piper (Aerostar)	1
71-04-01	Bell Superseded by 76-14-03	
71-04-03	Gulfstream American (Grumman)	1
71-05-02	Avco Lycoming	1
71-05-03	Beech	2
71-05-05	Pilatus Britten-Norman	1
71-05-06	Piper (Aerostar)	1
71-05-07	AiResearch	1
71-06-01	Beech	3
71-06-06	Raulo	1
71-06-08	Cleveland Products, Equipment	1
71-07-03	Bell Superseded by 71-16-04	
71-07-04	Cessna	1
71-08-03	Bell	1
71-08-06	Avco Lycoming	2
71-09-01	Cessna	1
71-09-03	Teledyne Continental	7
71-09-05	Piper	1
71-09-07	Cessna	2
71-10-01	Bellanca, MH	1
71-10-02	Piper (Aerostar)	2
71-11-01	deHavilland	1
71-11-02	Avco Lycoming	3
71-11-03	Hiller	1
71-11-04	Continental Superseded by 72-24-03	
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71-12-01	Piper	3
71-12-02	Beech Deleted 6/1/71	
71-12-03	Grumman American	1
71-12-04	Beech Superseded by 71-24-10	
71-12-05	Piper	3
71-13-01	Avco Lycoming	3
71-13-02	deHavilland (N.S.)	1
71-13-03	deHavilland (N.S.)	1
71-13-04	Bellanca Superseded by 72-13-03	
71-13-05	Dornier	1
71-14-01	Mitsubishi	1
71-14-02	Goodrich, Equipment	1
71-14-04	Beech Superseded by 82-23-02	
71-14-05	deHavilland	2
71-14-06	Piper	4
71-15-03	S.O.C.A.T.A. (Morane Saulnier)	1
71-16-01	deHavilland	2
71-16-03	S.O.C.A.T.A. (Morane Saulnier)	1
71-16-04	Gates Learjet	1
71-16-06	Glasflugel	1
71-16-07	S.O.C.A.T.A. (Morane Saulnier)	1
71-17-01	Maule	1
71-17-03	McCauley	1
71-17-04	SIAI Marchetti	1
71-17-05	Rynes (Brantly)	2
71-17-07	Piper (Aerostar)	4
71-17-08	Cessna	3
71-17-09	Schweizer	1
71-18-01	Cessna	3
71-18-02	McCauley	2
71-18-03	Piper	5
71-18-04	Bell	7
71-19-01	Schleicher	1
71-19-03	Pilatus Brit-Nor . Superseded by 83-07-03	
71-19-04	deHavilland (N.S.)	3
71-20-02	deHavilland (N.S.)	3
71-20-04	Bellanca, MH	1
71-20-05	Hughes	1
71-21-01	Cessna Superseded by 72-01-09	
71-21-02	Bell	2
71-21-05	Michel Ced. Ent. . Superseded by 72-19-04	
71-21-06	Piper	5
71-21-07	deHavilland	3
71-21-08	Piper	5
71-21-09	Hartzell	1
71-21-11	Helio Superseded by 72-14-04	
71-22-01	deHavilland Superseded by 83-05-03	
71-22-02	Cessna	3
71-22-03	Hiller	1
71-23-01	Pilatus	1
71-24-02	Hiller	1
71-24-04	Cessna	4
71-24-06	Hiller	2
71-24-07	Cessna Superseded by 76-06-01	
71-24-08	Hiller	2
71-24-09	Beech	3
71-24-10	Beech	4
71-25-03	Beech	5
71-25-05	Sweeringen Superseded by 72-07-01	
71-25-06	Hiller	2
71-26-02	Beech Superseded by 74-14-03	
71-26-03	Sikorsky	1
71-26-04	Hartzell Superseded by 72-08-04	
72-01-01	Bellanca, MH	1
72-01-02	Beech	5
72-01-03	Bellanca, MH	2
72-01-04	Beech Superseded by 73-12-11	
72-01-05	Prestolite Superseded by 72-15-03	
72-01-06	Beech Superseded by 72-10-04	
72-01-07	Piper	6
72-02-01	Cessna	5
72-02-02	Schweizer (Grumman)	1
72-02-05	Bell	8
72-02-06	Mitchell, Instruments	1
72-03-02	SIAI Marchetti	1
72-03-03	Cessna	6
72-03-04	Cessna	7
72-03-06	Allison	1
72-03-07	Cessna	8
72-04-03	Piper Superseded by 76-25-04	
72-04-04	Enstrom	1
72-05-01	Gates Learjet	1
72-06-02	Gulfstream American (Grumman)	1
72-06-03	deHavilland (N.S.)	4
72-06-04	deHavilland (N.S.)	5
72-06-05	Marvel-Schebler, Equipment	10
72-07-01	Acro Resources (McCulloch)	1
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72-07-10	Gulfstream American	1
72-07-11	Consolidated Aeronautics	1
72-08-02	deHavilland (H.S.)	6
72-08-03	deHavilland (H.S.)	6
72-08-04	Bartsell	1
72-08-05	Beech ..... Superseded by 72-20-05	
72-08-06	Piper	6
72-09-02	Bell ..... Superseded by 75-06-10	
72-09-03	Beech	5
72-09-04	deHavilland (H.S.)	7
72-10-01	deHavilland (H.S.)	7
72-10-03	deHavilland (H.S.)	8
72-10-04	Beech	6
72-10-05	Cessna ..... Superseded by 75-04-01	
72-11-01	Piper	7
72-11-02	Beech	7
72-11-03	Grumman American	1
72-11-04	Enstrom	1
72-11-05	Cessna	10
72-12-02	Mooney ..... Superseded by 73-21-01	
72-12-03	deHavilland (H.S.)	8
72-12-04	Cessna	11
72-12-05	deHavilland (H.S.)	8
72-13-01	Beech ..... Superseded by 75-06-09	
72-13-03	Bellanca, MH	2
72-13-04	Miller ..... Superseded by 75-10-01	
72-13-05	Grumman ..... Superseded by 73-12-06	
72-13-06	Bell ..... Superseded by 73-17-04	
72-13-07	Miller	3
72-13-08	Miller	3
72-14-02	SIAI Marchetti	2
72-14-05	Piper	7
72-14-07	Piper	8
72-14-08	Cessna	11
72-15-01	deHavilland (H.S.)	9
72-15-02	Prestolite, Equipment	1
72-15-03	Gates Learjet	2
72-16-01	Beech ..... Superseded by 72-20-05	
72-16-02	Beech	9
72-16-06	SIAI Marchetti	3
72-16-07	deHavilland (H.S.)	10
72-16-08	Aerospatiale (S.N.I.A.S.)	1
72-16-09	Hughes	1
72-17-01	Piper	6
72-17-02	Beech ..... Superseded by 72-22-01	
72-17-04	Bell ..... Superseded by 72-16-05	
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72-18-01	Beech	12
72-18-03	Bellanca, MH	3
72-18-04	Hughes	2
72-18-05	Bell ..... Superseded by 72-19-01	
72-18-06	Piper	9
72-18-07	Beech ..... Superseded by 79-01-02	
72-18-08	Beech ..... Superseded by 79-01-02	
72-19-01	Bell	4
72-19-02	Christen (Pitts)	1
72-19-04	Nickel-Cadmium Battery, General	1
72-19-05	Christen (Pitts)	1
72-20-01	deHavilland (H.S.)	11
72-20-02	Teledyne Continental	2
72-20-03	Beech	12
72-20-04	McKinnon ..... Superseded by 73-07-05	
72-20-05	Beech ..... Superseded by 75-27-09	
72-20-06	Bellanca, MH	4
72-21-01	S.L. Industries	1
72-21-02	Eyres (Brantly)	3
72-21-03	Piper	10
72-21-04	Avco Lycoming	3
72-21-06	Avco Lycoming	4
72-21-07	Piper	10
72-22-01	Beech	12
72-22-02	Razorback Fabrics, General	1
72-22-03	Piper ..... Superseded by 73-07-02	
72-22-04	Beech	13
72-22-05	Piper	11
72-23-01	British Aerospace (Handley Page)	1
72-23-03	Cessna	12
72-24-01	SIAI Marchetti .. Superseded by 83-07-23	
72-24-02	Piper	11
72-24-03	Teledyne Continental	3
72-25-01	Piper ..... Superseded by 73-14-02	
72-25-02	Rolls Royce	1
72-25-05	deHavilland ..... Superseded by 73-05-03	
72-25-06	Beech	14
72-25-07	McCauley	2
72-26-01	Beech	14
72-26-02	Piper ..... Superseded by 75-14-02	
73-01-01	S.L. Industries	1
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73-01-03	Air Cruisers, Equipment	1
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73-03-01	Hughes ..... Superseded by 79-19-01	
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73-03-04	Beech	14
73-04-02	Cessna ..... Superseded by 74-10-11	
73-05-01	Avco Lycoming	4
73-05-02	Bellanca, MH	5
73-05-03	deHavilland	14
73-05-04	Bell ..... Superseded by 73-09-03	
73-06-02	Gulfstream Aerospace (Rockwell)	2
73-07-02	Garrett, Equipment	1
73-07-04	Bendix, Equipment	1
73-07-05	McKinnon	1
73-07-06	Christen (Pitts)	2
73-07-07	Cessna	13
73-08-02	Fairchild Aircraft	1
73-08-03	Bell	5
73-09-01	Cessna ..... Deleted 6/21/76	
73-09-03	Aerospatiale (S.N.I.A.S.)	1
73-09-05	S.N.I.A.S. ..... Superseded by 76-07-10	
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73-10-02	Bendix, Equipment	2
73-10-03	Bartsell ..... Superseded by 77-12-06	
73-11-01	Hughes	2
73-11-02	Piper	12
73-11-04	SIAI Marchetti	3
73-11-06	Raulo	2
73-11-07	SIAI Marchetti	4
73-11-08	SIAI Marchetti	4
73-12-01	Bell	6
73-12-06	Grumman American	1
73-12-10	British Aerospace (Handley Page)	1
73-12-11	Beech	15
73-13-01	Piper	13
73-13-02	Aerospatiale (S.N.I.A.S.)	2
73-13-03	Beech ..... Superseded by 73-21-02	
73-13-04	Teledyne Continental	4
73-13-05	Slingsby	1
73-13-06	deHavilland (H.S.)	15
73-13-07	Gulfstream American (Grumman)	2
73-13-08	Cessna	14
73-13-09	Gulfstream Aerospace (Rockwell)	3
73-13-11	Mitchell, Instruments	1
73-14-02	Piper	14
73-14-03	Beech	14
73-14-04	Gulfstream Aerospace (Rockwell)	3
73-14-06	Gulfstream Aerospace (Rockwell)	3
73-14-08	Beech ..... Superseded by 76-14-05	
73-15-04	Avco Lycoming	5
73-15-05	Piper	14
73-16-01	Sikorsky	1
73-16-02	Cessna	14
73-16-03	Bell	6
73-16-06	Christen (Pitts)	2
73-17-01	Cessna	15
73-17-02	Slingsby	1
73-17-03	deHavilland (H.S.)	15
73-17-04	Bell	7
73-18-04	Beech ..... Superseded by 75-27-09	
73-19-01	deHavilland	14
73-19-02	Bell	7
73-19-03	Mitsubishi	1
73-19-04	Bell	8
73-19-06	deHavilland	14
73-19-07	Allison	1
73-19-08	Bell	8
73-19-09	Bell	9
73-19-10	Schweizer (Grumman)	1
73-20-03	Miller	3
73-20-04	Cessna	15
73-20-05	deHavilland	17
73-20-06	Bell ..... Deleted 6/14/76	
73-20-07	Beech	14
73-20-08	Univair, Propellers	1
73-21-01	Mooney	1
73-21-02	Beech	17
73-21-03	Bell	9
73-22-01	Cessna	14
73-22-02	Aircraft Parts & Development	1
73-23-01	Avco Lycoming	5
73-23-03	Beech	18
73-23-04	Beech ..... Superseded by 79-01-02	
73-23-05	General Electric	1
73-23-06	Beech	19
73-23-07	Cessna	16
73-24-01	Gulfstream Aerospace (Rockwell)	4
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73-26-02	Piper	15
73-26-03	Garrett	Superseded by 80-21-04
73-26-05	Scott Aviation, Equipment	1
73-26-07	AiResearch, Garrett	1
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73-26-09	Cessna	20
74-02-01	Bell	17
74-02-02	S.I. Industries	10
74-02-02	Beech	2
74-02-05	Teledyne Cont.	Superseded by 74-10-07
74-04-01	Cessna	21
74-04-03	Stiles	17
74-05-01	Beech	4
74-05-03	Enstrom	Superseded by 83-04-04
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74-06-02	Piper and Cessna	15
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74-07-02	Hughes	10
74-08-01	Aircraft Radio Corp	3
74-08-02	Bell	1
74-08-03	Bell	11
74-08-05	Stiles Electro	Superseded by 74-10-05
74-08-09	Lavatory Waste Receptacles (General)	1
74-08-11	deHavilland	10
74-08-12	Bell	14
74-09-01	Hughes	Superseded by 77-01-02
74-09-02	Piper	17
74-09-03	Avco Lycoming	9
74-09-04	Piper	17
74-09-06	Consolidated Aeronautics	1
74-10-01	Piper	18
74-10-03	Piper	Superseded by 79-20-10
74-10-10	AiResearch, Garrett	2
74-11-01	Mitsubishi	2
74-11-02	Mitsubishi	2
74-12-01	Enstrom	2
74-12-02	Beech	23
74-12-05	Bell	Superseded by 74-20-06
74-13-01	Piper	14
74-13-02	Beech	Superseded by 79-01-01
74-13-03	Piper	19
74-13-04	Piper	19
74-13-05	Avco Lycoming	8
74-13-06	McCauley, Equipment	1
74-13-07	Piper	20
74-14-01	Bartsell	3
74-14-02	Beech	23
74-14-03	Allison	1
74-14-04	Piper	20
74-14-07	Beech	20
74-14-08	Piper	21
74-15-02	Bartsell	Superseded by 77-12-04
74-15-06	Sikorsky	1
74-15-07	Balloons, HH	6
74-16-03	Beech	20
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74-18-05	Stich Electro, Equipment	1
74-18-06	Piper	20
74-18-07	Teledyne Continental	5
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74-18-13	Piper	24
74-18-14	Swearingen	Superseded by 74-24-02
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74-26-07	Piper	27
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75-01-05	Avco Lycoming	10
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75-02-01	Mitsubishi	3
75-02-03	Piper	28
75-03-04	Stiles	5
75-03-06	Mitsubishi	4
75-04-01	Cessna	Superseded by 75-23-09
75-04-02	Sikorsky	3
75-04-04	Cessna	20
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AIRWORTHINESS DIRECTIVE SUMMARY SUBJECT INDEX

SMALL AIRCRAFT

JULY 1986

(Also see applicable engine, propeller and equipment notes)

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The indexes, which are published twice a year, are intended to be used as a guide only and should not be relied upon as conclusive evidence of AD applicability. Aircraft operators, inspectors, and persons performing maintenance are reminded of their responsibility under sections 39.3, 43.11, and 43.13 of the Federal Aviation Regulations, respectively, to assure compliance with all applicable AD's.

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		83-07-13	Engine mount structure	1	2
AL60-B	7A12	63-07-02	Engine exhaust manifold	1	1
		64-04-04	Fuel selector valve	1	1
		65-28-03	Elevator center hinge eyebolt	1	1
		76-07-14	Engine mounting plates	1	2
		83-07-13	Engine mount structure	1	2
AER-PEGASO S.p.A.					
(See SOCIETE C.A.R.M.A.M., S.O.C.A.T.A.)					
M.1008	G6EU	69-24-01	Horizontal Stabilizer	1	1
		75-17-18	Aileron control	1	2
		75-23-02	Aileron spars	1	2
		76-05-09	Rudder hinge pin	1	2
AEROMCA INCORPORATED					
(See also TEXTRON, BELLANCA (MM), CHAMPION)					
15AC	A-802	48-38-01	Oil cooler installation	1	1
		48-43-02	Continental C-125-2 engines	1	1
		61-16-01	Lift strut fittings	1	1
		68-20-05	Fuel tank inspection	2	1
815AC	A-802	48-38-01	Oil cooler installation	1	1
		61-16-01	Lift strut fittings	1	1
		68-20-05	Fuel tank inspection	2	1
AERO RESOURCES, INC.					
(Formerly McCULLOCH)					
J2	H6WE	72-07-01	Rotor clearance and collective stick	1	2
AEROSTAR AIRCRAFT CORP.					
(See MOONEY AIRCRAFT CORP., SMITH AEROSTAR)					
AEROSPATIALE, Societe Nationale Industrielle Aerospatiale					
(See Sud Aviation)					
Alouette III SA315B	H1IN	73-09-03	Main rotor gear box	1	2
		73-13-02	Main drive shaft	2	2
		75-16-06	Tail rotor gear box	3	2
		75-24-14	Excessive vibration	6	2
		75-26-02	Main rotor head	7	2
		75-27-05	Main rotor blades	8	2
		81-03-04	Main gearshaft	16	2
		81-06-04	Transmission deck & bellcrank support	17	2
		81-21-01	ERC cargo hook assys	21	2
		84-01-03	"A" frame support assys	30	2
		85-07-07	Control rod	31	2
Alouette III SA316B	H1IN	73-09-03	Main rotor gear box	1	2
		73-13-02	Main drive shaft	2	2

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		75-16-06	Tail rotor gear box	3	2
		75-21-03	Tail boom	5	2
		75-22-21	Main gear boxes	6	2
		75-24-14	Excessive vibration	6	2
		75-26-02	Main rotor head	7	2
		75-27-05	Main rotor blades	8	2
		76-18-02	Tail rotor controls	10	2
		77-14-03	Tail rotor directional control	10	2
		81-03-04	Main gearshaft	16	2
		81-06-04	Transmission deck & bellcrank support	17	2
		84-01-03	"A" frame support assys	30	2
Alouette III SA316C	R1IH	73-09-03	Main rotor gear box	1	2
		73-13-02	Main drive shaft	2	2
		75-21-03	Tail boom	5	2
		75-24-14	Excessive vibration	6	2
		75-26-02	Main rotor head	7	2
		75-27-05	Main rotor blades	8	2
		76-18-02	Tail rotor controls	10	2
		78-23-03	Flight control support fittings	11	2
		81-03-04	Main gearshaft	16	2
		81-06-04	Transmission deck & bellcrank support	17	2
		84-01-03	"A" frame support assys	30	2
Alouette III SA319B	R1IH	73-09-03	Main rotor gear box	1	2
		73-13-02	Main drive shaft	2	2
		75-16-06	Tail rotor gear box	3	2
		75-21-03	Tail boom	5	2
		75-24-14	Excessive vibration	6	2
		75-26-02	Main rotor head	7	2
		75-27-05	Main rotor blades	8	2
		76-18-02	Tail rotor controls	10	2
		78-23-03	Flight control support fittings	11	2
		81-03-04	Main gearshaft	16	2
		81-06-04	Transmission deck & bellcrank support	17	2
		84-01-03	"A" frame support assys	30	2
Alouette III SE3160	R1IH	73-13-02	Main drive shaft	2	2
		75-16-06	Tail rotor gear box	3	2
		75-21-03	Tail boom	5	2
		75-24-14	Excessive vibration	6	2
		75-26-02	Main rotor head	7	2
		75-27-05	Main rotor blades	8	2
		76-18-02	Tail rotor controls	10	2
		77-14-03	Tail rotor directional control	10	2
Alouette II SE3130	7R1	58-14-01	Rotor blade bonding	1	1
		58-22-04	Tail rotor drive shaft	1	1
		59-05-06	Oilite bearing replacement	2	1
		60-11-09	Rotor blades	2	1
		61-16-07	Main rotor hubs	3	1
		61-22-08	Tail rotor gear box bolts	3	1
		63-19-05	Main rotor hub	4	1
		63-19-06	Main rotor shaft	4	1
		67-15-04	Tail rotor gear box drive shaft	4	1
		75-16-06	Tail rotor gear box	3	2
		75-24-14	Excessive vibration	6	2
		75-27-05	Main rotor blades	8	2
		85-07-07	Control rod	31	2
Alouette Astazou SA3180	7R1	72-16-08	Cracks in sleeves gear box oil line	1	2
		73-13-02	Main drive shaft	2	2
		75-16-06	Tail rotor gear box	3	2
		75-24-14	Excessive vibration	6	2
		75-27-05	Main rotor blades	8	2
		85-07-07	Control rod	31	2
Alouette II SE3130	7R1	75-16-06	Tail rotor gear box	3	2
		75-24-14	Excessive vibration	6	2
		75-27-05	Main rotor blades	8	2
		81-06-04	Transmission deck & bellcrank support	17	2
		85-07-07	Control rod	31	2
Alouette Astazou SA318B	7R1	72-16-08	Cracks in sleeves gear box oil line	1	2
		73-13-02	Main drive shaft	2	2
		75-16-06	Tail rotor gear box	3	2
		75-24-14	Excessive vibration	6	2
		81-06-04	Transmission deck & bellcrank support	17	2
		85-07-07	Control rod	31	2
Alouette Astazou SA318C	7R1	72-16-08	Cracks in sleeves gear box oil line	1	2
		73-13-02	Main drive shaft	2	2
		75-16-06	Tail rotor gear box	3	2
		75-24-14	Excessive vibration	6	2
		75-27-05	Main rotor blades	8	2
		81-06-04	Transmission deck & bellcrank support	17	2

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		75-17-25		Main rotor head	4	2
		75-17-26		Over-torquing of engine	5	2
		75-22-07		Main gear boxes	5	2
		75-27-04		Fuel system modification	7	2
		76-02-02		Tail rotor drive system	8	2
		76-02-03		Hydraulic unit	9	2
		76-07-10		Main gear box attach	9	2
		77-22-04		Landing gear	10	2
SA330 Series	H4EU	82-12-07		Tail rotor transmission assy.	23	2
SA-360C Series	H8EU	80-21-52		Main rotor speed loss	14	2
		81-14-51		Tail rotor fairing and hub	20	2
		81-26-02		Stabilizer spar tube structure	22	2
		82-05-04		Pilot/co-pilot seat slides	23	2
SA-360	H8EU	81-01-51		Tail boom	15	2
AS-350 Series	H9EU	80-14-15		Flange inspection	11	2
		80-15-05		Spherical thrust bearing rear block	12	2
		80-15-13		Rotating drive adapter	13	2
		80-22-08		Tail rotor transmission	14	2
		81-09-06		Bevel gear modules	18	2
		81-13-09	R2	Tail rotor blades pitch horn	20	2
		82-10-01		Tail rotor blades	23	2
		82-13-05	R1	Upper vertical fin	24	2
		82-20-05		Tail rotor drive shaft	25	2
		83-07-05	R3	Main rotor mast	25	2
		85-14-06	R1	Fuselage tailboom	32	2
AS350B	H9EU	81-15-02		Float gear mounting brackets	21	2
		83-11-01	R1	Emergency flotation system	27	2
AS350C	H9EU	81-15-02		Float gear mounting brackets	21	2
		83-11-01	R1	Emergency flotation system	27	2
AS350D	H9EU	81-15-02		Float gear mounting brackets	21	2
		83-11-01	R1	Emergency flotation system	27	2
AS350D-1	H9EU	81-15-02		Float gear mounting brackets	21	2
		83-11-01	R1	Emergency flotation system	27	2
AS-355 Series	H11EU	81-13-09	R2	Tail rotor blades pitch horns	20	2
		82-10-01		Tail rotor blades	23	2
		82-13-05	R1	Upper vertical fin	24	2
		82-20-05		Tail rotor drive shaft	25	2
		83-07-05	R3	Main rotor mast	25	2
		83-08-04	R3	Epicyclic planet pinion cages	27	2
		83-19-04		Splined flange inspection	30	2
		85-14-06	R1	Fuselage tailboom	32	2
SA-365 Series	H10EU	81-14-51		Tail rotor fairing and hub	20	2
SA-365C Series	H10EU	80-15-05		Spherical thrust bearing rear block	12	2
		81-10-09		Tail rotor gearbox mount assy	19	2
		81-26-02		Stabilizer spar tube structure	22	2
		82-05-04		Pilot/co-pilot seat slides	23	2
SA365C	H10EU	81-01-51		Tail boom	15	2
SA365C1	H10EU	81-01-51		Tail boom	15	2
SA365C2	H10EU	81-01-51		Tail boom	15	2
AGUSTA, Costruzioni Aeronautiche Giovanni						
A109 Series	H7EU	78-24-02		Main transmission	1	2
A109	H7EU	79-02-04		Tail rotor drive shafts	1	2
		81-02-04		Main blade pitch control	6	2
A109A Series	H7EU	80-15-12		Main rotor mast bearing	3	2
		80-16-02		Nose LG mount assembly	4	2
		80-22-09		Engine mount structure	6	2
		81-02-04		Main blade pitch control	6	2
		81-13-11		Main rotor blades	7	2
		82-01-06		Engine mount central leg	9	2
		82-04-04		Tail boom assemblies	10	2
		84-13-06	R1	Tail rotor blade grip	11	2

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		78-02-04		Tail rotor drive shaft	1	2
		78-04-02		Tailboom attachments	2	2
		79-19-07	R1	Tail rotor gear box	2	2
		80-07-10		Engine operating condition	3	2
		81-20-02		Drive shaft support bearings	8	2
A109AII	H7EU	84-13-04	R1	Tail rotor blade grip	11	2
AIR & SPACE MFG., INC.						
18A	1H17	65-19-01		Rotor blade retention	1	1
		66-08-01		Lateral control system	1	1
		67-14-01		Rotor blade modification	1	1
AIRCRAFT PARTS & DEVELOPMENT CORP. (Formerly AERO COMMANDER, CALLAIR, INTERMOUNTAIN)						
A-4	A-758	60-07-03		Engine mount brace	1	1
A-5	A-758	60-07-03		Engine mount brace	1	1
		64-02-03		Horizontal stabilizers	1	1
A-6	A-758	60-07-03		Engine mount brace	1	1
		64-02-03		Horizontal stabilizers	1	1
A-9	A-758	73-22-02		Water in wing lift struts	1	2
		78-20-06		Hopper's carry through tube	1	2
A-9A	A-758	73-22-02		Water in wing lift struts	1	2
		78-20-06		Hopper's carry through tube	1	2
A-9B	A9SE	73-22-02		Water in wing lift struts	1	2
		78-20-06		Hopper's carry through tube	1	2
AIR TRACTOR, INC.						
AT-300	A9SW	82-06-12		Main landing gear struts	1	2
		83-10-01		Fuselage attach fittings	1	2
AT-301	A9SW	82-06-12		Main landing gear struts	1	2
		83-10-01		Fuselage attach fittings	1	2
AT-302	A9SW	82-06-12		Main landing gear struts	1	2
		83-10-01		Fuselage attach fittings	1	2
AT-400	A9SW	82-06-12		Main landing gear struts	1	2
AT-400A	A9SW	82-06-12		Main landing gear struts	1	2
AMERICAN AVIATION CORP. (See GULFSTREAM AMERICAN AVIATION CORP.)						
AVIAN FALCONS						
Sparrow		84-15-01		Placard - tethered flight	1	2
Falcon II	A2NW	84-15-01		Placard - tethered flight	1	2
Skyhawk	A3NW	84-15-01		Placard - tethered flight	1	2
AVIONS MUDRY et CIE						
CAP 10 B Series	A36SU	80-26-51		Wing main spar	1	2
AYRES CORPORATION						
S2A	2A9	61-14-06		Control cables	1	1
		63-05-03		Wing main spar web flanges	1	1
		66-14-01		Wing lower spar caps	1	1
S-2B	2A7	63-05-03		Wing main spar web flanges	1	1
		66-17-01		Wing lower spar caps	1	1
S-2C	2A7	63-05-03		Wing main spar web flanges	1	1
		66-14-01		Wing lower spar caps	1	1
600 S-2C	2A7	66-14-01		Wing lower spar caps	1	1
600 S-2D	A3NW	79-10-10		Separation of hinge from rudder assy	1	2
		80-04-04		Cracks in tubular front spar	2	2
S-2R	A3NW	79-10-10		Separation of hinge from rudder assy	1	2
		80-04-04		Cracks in tubular front spar	2	2

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82R-T15	A38W	80-04-06		Cracks in tubular front spar	2	2
600-820	A48W	79-10-10		Separation of hinge from rudder assy ..	1	2
		80-04-06		Cracks in tubular front spar	2	2
S-2R	A48W	79-10-10		Separation of hinge from rudder assy ..	1	2
		80-04-06		Cracks in tubular front spar	2	2
82R-T34	A48W	80-04-06		Cracks in tubular front spar	2	2
82R-T15	A48W	80-04-06		Cracks in tubular front spar	2	2
82R-R38	A48W	80-04-06		Cracks in tubular front spar	2	2
82R-T11	A48W	80-04-06		Cracks in tubular front spar	2	2
82R-R1820	A48W	84-09-03		Fuselage upper longerons	4	2
THE BALLOON WORKS						
All Models	A1480	75-12-08		Throttle or trigger valves	1	2
Firefly 5	A1480	81-05-03		Fuel tank shut-off valve modification .	2	2
Firefly 6	A1480	75-17-36		Brass nipple failure	1	2
		81-05-03		Fuel tank shut-off valve modification .	2	2
Firefly 6B	A1480	75-17-36		Brass nipple failure	1	2
		81-05-03		Fuel tank shut-off valve modification .	2	2
Firefly 7	A1480	75-17-36		Brass nipple failure	1	2
		81-05-03		Fuel tank shut-off valve modification .	2	2
Firefly 7B	A1480	81-05-03		Fuel tank shut-off valve modification .	2	2
		84-06-03		Jumper cords	2	2
Firefly B-24	A1480	81-05-03		Fuel tank shut-off valve modification .	2	2
BEAGLE AIRCRAFT (See BRITISH AEROSPACE CORP.)						
BEECH AIRCRAFT CORP.						
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		47-06-09		Landing gear retracting mechanism	1	1
		47-30-06		Generator relay control switch	1	1
		47-30-07		Tripfree circuit breaker	2	1
		47-33-03		Tail cone drain holes	2	1
		47-33-05		Horizontal stabilizer spar	3	1
		48-14-03		Wing center section spar	6	1
		48-34-01		Stabilizer attachment fittings	6	1
		48-51-01		Control wheel shaft inspection	7	1
		49-15-03		Fuel tank vent system	7	1
		65-03-01		Gap seal strips	17	1
		75-27-09	R2	Wing structure	37	2
D17S	A-649	48-51-01		Control wheel shaft inspection	7	1
C18S	A-757	47-06-08		Starter solenoid and buss lead wire ...	1	1
		47-06-09		Landing gear retracting mechanism	1	1
		47-33-03		Tail cone drain holes	2	1
		47-34-04		Fuel tank gaskets	3	1
		47-33-05		Horizontal stabilizer spar	3	1
		48-14-03		Wing center section spar	6	1
		48-34-01		Stabilizer attachment fittings	6	1
		48-51-01		Control wheel shaft inspection	7	1
		49-15-03		Fuel tank vent system	7	1
		65-03-01		Gap seal strips	17	1
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
D18C	A-765	47-33-06		Stabilizer spar replacement	4	1
		47-33-07		Alternate static source	4	1
		47-34-01		Expansion type filler cap	4	1
		47-34-02		Tail cone drain holes	5	1
		47-34-03		Fuel cell seal	5	1
		48-13-01		Generator control box insulation	6	1
		48-34-01		Stabilizer attachment fittings	6	1
		49-29-02		Rudder spring bushings	8	1
		64-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2

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		47-33-06		Stabilizer spar replacement	4	1
		47-33-07		Alternate static source	4	1
		47-34-01		Expansion type filler cap	4	1
		47-34-02		Tail cone drain holes	5	1
		47-34-03		Fuel cell seal	5	1
		48-13-01		Generator control box insulation	6	1
		48-34-01		Stabilizer attachment fittings	6	1
		49-29-02		Rudder spring bushings	8	1
		59-18-02		Fuel line modification	12	1
		65-03-01		Gap seal strips	17	1
		66-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
E18S	A-765	56-20-01		Tail wheel axle	10	1
		65-03-01		Gap seal strips	17	1
		66-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
E18S-9700	A-765	66-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
G18S	A-765	68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
H18	A-765	68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
D18C-T	770	47-33-06		Stabilizer spar replacement	4	1
		47-33-07		Alternate static source	4	1
		47-34-02		Tail cone drain holes	5	1
		47-51-10		Birdproof windshield	6	1
		48-34-01		Stabilizer attachment fitting	6	1
		49-29-02		Rudder spring bushings	8	1
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
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		77-19-07		Control column assembly	65	2
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		77-19-07		Control column assembly	65	2
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		77-19-07		Control column assembly	65	2
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	A-765	75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
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		60-16-01		Emergency elec. switch/seats	12	1
		66-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2

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TC-45G	A-765	59-18-02		Fuel line modification	12	1
		60-16-01		Emergency elec. switch/seats	12	1
		66-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
C-45H	A-765	59-18-02		Fuel line modification	12	1
		60-16-01		Emergency elec. switch/seats	12	1
		66-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
TC-45H	A-765	59-18-02		Fuel line modification	12	1
		60-16-01		Emergency elec. switch/seats	12	1
		66-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
TC-45J (SNB-5)	A-765	66-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
JRB-6	A-765	66-30-01		Static pressure line	19	1
		68-23-06		Volpar tri-gear	21	1
		72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
3N, 3NM, 3TM	A-765	72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
		78-10-01		Lower rudder torque tube	68	2
RC-45J (SNB-5P)	A-765	72-16-02	R3	Volpar nose gear fork	9	2
		72-25-06		Nose gear extension	14	2
		75-27-09	R2	Wing structure	37	2
		77-19-07		Control column assembly	65	2
23 All Models	A1CE	64-06-01		Cabin heater/muffler weld assy	16	1
23	A1CE	63-06-01		Cabin door hinge	14	1
		65-11-01		Instrument static system	18	1
		65-19-02		Aileron control column links	19	1
		68-17-06		Parking brake	20	1
		70-15-03		Fuel selector valve	27	1
		73-12-11		Carburetor air box valve	15	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		73-23-06		Throttle control cable	19	2
		74-23-09		Inflight situations	26	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2
		85-05-02		Fuel selector guard mod.	115	2
A23	A1CE	65-19-02		Aileron control column links	19	1
		68-17-06		Parking brake	20	1
		70-15-03		Fuel selector valve	27	1
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2

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		85-05-02		Fuel selector guard mod.	115	2
A23A	A1CE	68-17-06		Parking brake	20	1
		70-15-03		Fuel selector valve	27	1
		71-25-03		Fuel and oil restrictor	5	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2
		85-05-02		Fuel selector guard mod.	115	2
A23-19	A1CE	68-17-06		Parking brake	20	1
		70-15-03		Fuel selector valve	27	1
		73-12-11		Carburetor air box valve	15	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		73-23-06		Throttle control cable	19	2
		74-23-09		Inflight situations	26	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2
		85-05-02		Fuel selector guard mod.	115	2
19A	A1CE	70-15-03		Fuel selector valve	27	1
		71-25-03		Fuel and oil restrictor	5	2
		73-12-11		Carburetor air box valve	15	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		73-23-06		Throttle control cable	19	2
		74-23-09		Inflight situations	26	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2
		85-05-02		Fuel selector guard mod.	115	2
B19	A1CE	71-25-03		Fuel and oil restrictor	5	2
		73-12-11		Carburetor air box valve	15	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		73-23-06		Throttle control cable	19	2
		73-25-04		Maximum design weight placard	19	2
		74-05-01		Restricted fuel vent tank lines	22	2
		74-14-02		Carburetor and air controls	23	2
		74-14-05		Placard, spins	24	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-10-09		Wing flaps	49	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2
		78-16-06		Structural integrity of trim tab rod	72	2
		85-05-02		Fuel selector guard mod.	115	2
M19A	A1CE	71-25-03		Fuel and oil restrictor	5	2
		73-12-11		Carburetor air box valve	15	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		73-23-06		Throttle control cable	19	2
		74-23-09		Inflight situations	26	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		85-05-02		Fuel selector guard mod.	115	2
A23-24	A1CE	68-17-06		Parking brake	20	1
		70-15-03		Fuel selector valve	27	1
		71-25-03		Fuel and oil restrictor	5	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2
		85-05-02		Fuel selector guard mod.	115	2
B23	A1CE	70-15-03		Fuel selector valve	27	1
		71-25-03		Fuel and oil restrictor	5	2

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		73-12-11		Carburetor air box valve	15	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		73-23-06		Throttle control cable	19	2
		74-23-09		Inflight situations	26	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2
		85-05-02		Fuel selector guard mod.	115	2
C23	A1CE	71-25-03		Fuel and oil restrictor	5	2
		73-12-11		Carburetor air box valve	15	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		73-23-06		Throttle control cable	19	2
		74-05-01		Restricted fuel tank vent lines	22	2
		74-14-02		Carburetor and air controls	23	2
		74-14-05		Placard, spins	24	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-10-09		Wing flaps	49	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2
		78-16-06		Structural integrity of trim tab rod	72	2
		85-05-02		Fuel selector guard mod.	115	2
A24	A1CE	71-25-03		Fuel and oil restrictor	5	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		73-23-03		Flexible induction air ducts	18	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		77-03-05		Main landing gear	56	2
		78-04-01		Wing flap control	68	2
		85-05-02		Fuel selector guard mod.	115	2
A24R	A1CE	71-25-03		Fuel and oil restrictor	5	2
		73-20-07	R2	Wing attach bolts/brackets	16	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		76-25-05		Aileron control	54	2
		78-04-01		Wing flap control	68	2
		85-05-02		Fuel selector guard mod.	115	2
B24R	A1CE	73-20-07	R2	Wing attach bolts/brackets	16	2
		74-05-01		Restricted fuel tank vent lines	22	2
		75-01-04		Fuel selector valve	28	2
		75-17-37		Carburetor mixture and/or heat control	35	2
		75-20-08		Propeller governor	35	2
		76-10-09		Wing flaps	49	2
		78-04-01		Wing flap control	68	2
		78-16-06		Structural integrity of trim tab rod	72	2
		85-05-02		Fuel selector guard mod.	115	2
C24R	A1CE	78-04-01		Wing flap control	68	2
		78-16-06		Structural integrity of trim tab rod	72	2
		85-05-02		Fuel selector guard mod	115	2
T-34C (T-34C-1, 34C)	A26CE	80-07-05		Bolt and nut, wing section	88	2
		85-22-05		Nut and bolt replacement	116	2
35 All Models (Series)	A-777, 3A15	49-26-01		Trailing antenna rework	8	1
		49-48-01		Thompson fuel pump	9	1
		51-14-01		Fuel booster pump removal	9	1
		55-22-01		Oil outlet check valve	10	1
		57-18-01		Fuselage bulkhead cracks	11	1
		62-08-03		Control wheels	13	1
		69-18-01		Fuel system modification	23	1
		84-09-01		Window emer. egress prov.	112	2
35	A-777	47-47-07		Engine identification plate	5	1
		47-47-08		Fuel line chafing	5	1
		48-08-01		Starter rework	6	1
		49-04-01		Aileron chain	7	1
		49-31-01		Emergency fuel pump "O" rings	9	1
		53-01-02		Fuel selector valve rework	10	1
		57-18-01		Fuselage bulkhead cracks	11	1
		62-08-03		Control wheels	13	1
		63-25-01		Fuselage modification	14	1
		72-11-02		Engine fuel interruption	7	2
		72-18-01		Fuel selector valve warning light	12	2
		72-22-01		Landing gear uplock rollers	12	2
		75-05-02		Engine oil	29	2

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		75-15-08	Engine lubrication	32	2
		76-05-04	Stabilizer attach fitting	47	2
A35	A-777	49-26-01	Trailing antenna rework	8	1
		49-31-01	Emergency fuel pump "O" rings	9	1
		49-48-01	Thompson fuel pump	9	1
		50-42-01	Elevator tab replacement	9	1
		51-14-01	Fuel booster pump removal	9	1
		53-01-02	Fuel selector valve rework	10	1
		57-18-01	Fuselage bulkhead cracks	11	1
		59-09-01	Landing gear limit switches	11	1
		62-08-03	Control wheels	13	1
		63-25-01	Fuselage modification	14	1
		69-18-01	Fuel system modification	23	1
		72-11-02	Engine fuel interruption	7	2
		72-18-01	Fuel selector valve warning light	12	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
		76-05-04	Stabilizer attach fitting	47	2
B35	A-777	53-01-02	Fuel selector valve rework	10	1
		57-18-01	Fuselage bulkhead cracks	11	1
		59-08-01	Landing gear limit switches	11	1
		62-08-03	Control wheels	13	1
		63-25-01	Fuselage modification	14	1
		69-18-01	Fuel system modification	23	1
		72-11-02	Engine fuel interruption	7	2
		72-18-01	Fuel selector valve warning light	12	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
		76-05-04	Stabilizer attach fitting	47	2
C35	A-777	53-01-02	Fuel selector valve rework	10	1
		59-08-01	Landing gear limit switches	11	1
		62-08-03	Control wheels	13	1
		69-18-01	Fuel system modification	23	1
		72-11-02	Engine fuel interruption	7	2
		72-18-01	Fuel selector valve warning light	12	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
D35	A-777	62-08-03	Control wheels	13	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
E35	A-777	62-08-03	Control wheels	13	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
F35	A-777	62-08-03	Control wheels	13	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
G35	A-777	62-08-03	Control wheels	13	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
35R	A-777	63-25-01	Fuselage modification	14	1
		72-11-02	Engine fuel interruption	7	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
		76-05-04	Stabilizer attach fitting	47	2
H35	3A15	62-08-03	Control wheels	13	1
		65-14-01	Alternator support bracket	18	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
J35	3A15	62-08-03	Control wheels	13	1
		65-14-01	Alternator support bracket	18	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2

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		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
K35	3A15	62-08-03	Control wheels	13	1
		65-14-01	Alternator support bracket	18	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
M35	3A15	62-08-03	Control wheels	13	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
N35	3A15	62-08-03	Control wheels	13	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
P35	3A15	62-08-03	Control wheels	13	1
		64-27-01	Control wheel column aft stop	17	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
		76-03-05	Housing cable and battery relay	46	2
S35	3A15	64-27-01	Control wheel column aft stop	17	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-01-07	Exhaust system failures	28	2
		75-05-02	Engine oil	29	2
V35	3A15	70-03-05	Turning type takeoffs	25	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-01-07	Exhaust system failures	28	2
		75-05-02	Engine oil	29	2
V35A	3A15	70-03-05	Turning type takeoffs	25	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-01-07	Exhaust system failures	28	2
		75-05-02	Engine oil	29	2
V35B	3A15	71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		73-14-03	Landing gear shock strut piston	16	2
		74-03-02	Landing gear shock strut piston	21	2
		74-24-03	Strobe light system	27	2
		75-01-07	Exhaust system failures	28	2
		75-05-02	Engine oil	29	2
		76-22-02	"Y" type shoulder harness	52	2
		79-01-01	Screws in control system	76	2
35-33	3A15	62-08-03	Control wheels	13	1
		65-14-01	Alternator support bracket	18	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
35-A33	3A15	62-08-03	Control wheels	13	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
35-B33	3A15	62-08-03	Control wheels	13	1
		70-03-05	Turning type takeoffs	25	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2

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		75-15-08	Engine lubrication	32	2
		76-03-05	Housing cable and battery relay	46	2
		79-01-01	Screws in control system	76	2
35-C33	3A15	70-03-05	Turning type takeoffs	25	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		75-15-08	Engine lubrication	32	2
		76-03-05	Housing cable and battery relay	46	2
		79-01-01	Screws in control system	76	2
35-C33A	3A15	70-03-05	Turning type takeoffs	25	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		79-01-01	Screws in control system	76	2
33 All Models (Series)	3A15	84-09-01	Window emer. egress prov.	112	2
E33	3A15	70-03-05	Turning type takeoffs	25	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		76-03-05	Housing cable and battery relay	46	2
E33A	3A15	70-03-05	Turning type takeoffs	25	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
E33C	3A15	70-03-05	Turning type takeoffs	25	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		83-17-05	Changes to AFM re maneuvers	109	2
F33	3A15	71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		76-03-05	Housing cable and battery relay	46	2
F33A	3A15	71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		73-14-03	Landing gear shock strut piston	16	2
		74-03-02	Landing gear shock strut piston	21	2
		74-24-03	Strobe light system	27	2
		75-05-02	Engine oil	29	2
		76-22-02	"Y" type shoulder harness	52	2
		79-01-01	Screws in control system	76	2
F33C	3A15	70-03-05	Turning type takeoffs	25	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		73-14-03	Landing gear shock strut piston	16	2
		75-05-02	Engine oil	29	2
		76-22-02	"Y" type shoulder harness	52	2
		79-01-01	Screws in control system	76	2
		83-17-05	Changes to AFM re maneuvers	109	2
G33	3A15	72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-05-02	Engine oil	29	2
		76-03-05	Housing cable and battery relay	46	2
		79-01-01	Screws in control system	76	2
36 Series	3A15	84-09-01	Window emer. egress provisions	112	2
36	3A15	70-03-05	Turning type takeoffs	25	1
		70-12-02	Center seat tracks	26	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		74-12-02	Aft facing seats	23	2
		75-05-02	Engine oil	29	2
A36	3A15	70-12-02	Center seat tracks	26	1
		71-24-10	Security of control wheel	4	2

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		72-11-02		Engine fuel interruption	7	2
		72-22-01		Landing gear uplock rollers	12	2
		73-14-03		Landing gear shock strut piston	16	2
		74-03-02		Landing gear shock strut piston	21	2
		74-12-02		Aft facing seats	23	2
		74-24-03		Strobe light system	27	2
		75-05-02		Engine oil	29	2
		76-22-02		"Y" type shoulder harness	52	2
		79-01-01		Screws in control system	76	2
A36TC	3A15	80-21-02		Fuel leak	96	2
		84-08-04		Oil return line check valve	111	2
B36TC	3A15	84-08-04		Oil return line check valve	111	2
45 (YT-34)	5A3	62-24-01		Stabilizer spar	14	1
A45 (T34A, B45)	5A3	61-26-01		Oil pickup hoses	13	1
		62-24-01		Stabilizer spar	14	1
		72-22-01		Landing gear uplock rollers	12	2
		75-24-11		Cable and bellcrank assys	36	2
D45 (T-34B)	5A3	62-24-01		Stabilizer spar	14	1
		72-22-01		Landing gear uplock rollers	12	2
		75-24-11		Cable and bellcrank assys	36	2
50 Series	5A4	84-09-01		Window emer. egress prov.	112	2
50	5A4	62-08-03		Control wheels	13	1
		78-22-05		Elevator control push rods	73	2
		85-22-05		Nut and bolt replacement	116	2
B50	5A4	58-13-02		Tail light assembly	11	1
		62-08-03		Control wheels	13	1
		78-22-05		Elevator control push rods	73	2
		85-22-05		Nut and bolt replacement	116	2
C50	5A4	58-13-02		Tail light assembly	11	1
		62-08-03		Control wheels	13	1
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
		85-22-05		Nut and bolt replacement	116	2
D50	5A4	58-13-02		Tail light assembly	11	1
		62-08-03		Control wheels	13	1
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
		85-22-05		Nut and bolt replacement	116	2
D50A	5A4	62-08-03		Control wheels	13	1
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
		85-22-05		Nut and bolt replacement	116	2
D50B	5A4	62-08-03		Control wheels	13	1
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
D50C	5A4	62-08-03		Control wheels	13	1
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
D50E	5A4	62-08-03		Control wheels	13	1
		64-24-02		Wing attach bolts	16	1
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
		85-22-05		Nut and bolt replacement	116	2
E50	5A4	58-13-02		Tail light assembly	11	1
		62-08-03		Control wheels	13	1
		78-11-01		Powerplant fires	69	2
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
		85-22-05		Nut and bolt replacement	116	2
F50	5A4	58-13-02		Tail light assembly	11	1
		62-08-03		Control wheels	13	1
		78-11-01		Powerplant fires	69	2
		78-22-05		Elevator control push rods	73	2

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		79-13-01		Powerplant fire detection/containment	81	2
		85-22-05		Nut and bolt replacement	116	2
G50	5A4	62-08-03		Control wheels	13	1
		78-11-01		Powerplant fires	69	2
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
		85-22-05		Nut and bolt replacement	116	2
B50	5A4	62-08-03		Control wheels	13	1
		78-11-01		Powerplant fires	69	2
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
		85-22-05		Nut and bolt replacement	116	2
J50	5A4	62-08-03		Control wheels	13	1
		64-24-02		Wing attach bolts	16	1
		78-11-01		Powerplant fires	69	2
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-13-01		Powerplant fire detection/containment	81	2
		85-22-05		Nut and bolt replacement	116	2
60 Series	A12CE	72-22-04		Elevator movement interference	13	2
60	A12CE	74-05-05		Pilot's side window	22	2
		74-12-02		Aft facing seats	23	2
		75-06-09		Elevator inboard hinge support	30	2
		77-02-04		Wing tip strobe lights	54	2
		77-14-08		Water in fuselage	64	2
		80-04-07		Outboard wing panel nuts	86	2
		83-08-05		Air conditioner modification	108	2
		85-22-05		Nut and bolt replacement	116	2
A60	A12CE	71-05-03		Known icing conditions	2	2
		74-05-05		Pilot's side window	22	2
		74-12-02		Aft facing seats	23	2
		74-24-03		Strobe light system	27	2
		75-06-09		Elevator inboard hinge support	30	2
		77-02-04		Wing tip strobe lights	54	2
		77-14-08		Water in fuselage	64	2
		80-04-07		Outboard wing panel nuts	86	2
		83-08-05		Air conditioner modification	108	2
		85-22-05		Nut and bolt replacement	116	2
B60 (U-8F)	A12CE	74-24-03		Strobe light system	27	2
		76-13-05		Electrical power	51	2
		77-14-08		Water in fuselage	64	2
		80-04-07		Outboard wing panel nuts	86	2
		83-08-05		Air conditioner modification	108	2
		85-22-05		Nut and bolt replacement	116	2
65 (L-23F)	3A20	62-08-03		Control wheels	13	1
		64-24-02		Wing attach bolts	16	1
		70-25-01		Cracking of wing center section	27	1
		76-09-01		Emergency exit door	47	2
		77-22-01		Fuselage structure	66	2
		78-11-01		Powerplant fires	69	2
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-16-01		Wing structure	82	2
		81-23-01	R1	Beech kit or STC	103	2
		85-22-05		Nut and bolt replacement	116	2
65-80	3A20	69-06-06		Rudder spar cracks	23	1
		70-25-01		Cracking of wing center section	27	1
		76-09-01		Emergency exit door	47	2
		77-22-01		Fuselage structure	66	2
		78-11-01		Powerplant fires	69	2
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-16-01		Wing structure	82	2
		85-22-05		Nut and bolt replacement	116	2
65-A80	3A20	69-06-06		Rudder spar cracks	23	1
		70-25-01		Cracking of wing center section	27	1
		76-09-01		Emergency exit door	47	2
		77-22-01		Fuselage structure	66	2
		78-11-01		Powerplant fires	69	2
		78-22-05		Elevator control push rods	73	2
		79-01-02	R2	In-flight fires	78	2
		79-16-01		Wing structure	82	2
		81-23-01	R1	Beech kit or STC	103	2

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		85-22-05	Nut and bolt replacement	116	2
				23	1
	3A20	69-06-06	Rudder spar cracks	47	2
65-A80-8800		76-09-01	Emergency exit door	66	2
		77-22-01	Fuselage structure	69	2
		78-11-01	Powerplant fires	73	2
		78-22-05	Elevator control push rods	78	2
		79-01-02 R2	In-flight fires	82	2
		79-16-01	Wing structure	103	2
		81-23-01 R1	Beech kit or STC	116	2
		85-22-05	Nut and bolt replacement		
				23	1
	3A20	69-06-06	Rudder spar cracks	27	1
		70-25-01	Cracking of wing center section	25	2
65-B80		74-16-04	Restricted elevator travel	27	2
		74-24-03	Strobe light system	47	2
		76-09-01	Emergency exit door	52	2
		76-22-02	"Y" type shoulder harness	54	2
		77-02-04	Wing tip strobe lights	66	2
		77-22-01	Fuselage structure	69	2
		78-11-01	Powerplant fires	73	2
		78-22-05	Elevator control push rods	76	2
		79-01-01	Screws in control system	78	2
		79-01-02 R2	In-flight fires	103	2
		81-23-01 R1	Beech kit or STC	116	2
		85-22-05	Nut and bolt replacement		
				23	1
	3A20	69-06-06	Rudder spar cracks	49	2
65-88		76-10-10	Cabin door	66	2
		77-22-01	Fuselage structure	69	2
		78-11-01	Powerplant fires	73	2
		78-22-05	Elevator control push rods	78	2
		79-01-02 R2	In-flight fires	103	2
		81-23-01 R1	Beech kit or STC	114	2
		85-01-01	Acrylic windows	116	2
		85-22-05	Nut and bolt replacement		
				21	1
	3A20	68-21-04	Ice damage to engine	23	1
		69-06-06	Rudder spar cracks	27	1
65-90		70-22-01	Heater pressure switch	30	1
		70-25-04	Cracking of wing center section	12	2
		72-20-03	Heater overheat	30	2
		75-08-16	Fuel contamination	49	2
		76-10-10	Cabin door	66	2
		77-22-01	Fuselage structure	73	2
		78-22-05	Elevator control push rods	82	2
		79-16-01	Wing structure	103	2
		81-23-01 R1	Beech kit or STC	107	2
		82-23-02	Elevator control	114	2
		85-01-01	Acrylic windows	116	2
		85-22-05	Nut and bolt replacement		
				21	1
	3A20	68-21-04	Ice damage to engine	23	1
		69-06-06	Rudder spar cracks	12	2
65-A90		72-20-03	Heater overheat	30	2
		75-08-16	Fuel contamination	49	2
		76-10-10	Cabin door	66	2
		77-22-01	Fuselage structure	71	2
		78-11-06	Elevator control cable	73	2
		78-22-05	Elevator control push rods	103	2
		81-23-01 R1	Beech kit or STC	107	2
		82-23-02	Elevator control	114	2
		85-01-01	Acrylic windows	116	2
		85-22-05	Nut and bolt replacement		
				47	2
	3A20	76-09-01	Emergency exit door	66	2
A65		77-22-01	Fuselage structure	69	2
		78-11-01	Powerplant fires	73	2
		78-22-05	Elevator control push rods	78	2
		79-01-02 R2	In-flight fires	103	2
		81-23-01 R1	Beech kit or STC	116	2
		85-22-05	Nut and bolt replacement		
				21	1
	3A20	68-21-04	Ice damage to engine	103	2
65-A90-1, -2, -3, -4		81-23-01 R1	Beech kit or STC	116	2
		85-22-05	Nut and bolt replacement		
				47	2
	3A20	76-09-01	Emergency exit door	66	2
A65-8200		77-22-01	Fuselage structure	69	2
		78-11-01	Powerplant fires	73	2
		78-22-05	Elevator control push rods	78	2
		79-01-02 R2	In-flight fires	103	2
		81-23-01 R1	Beech kit or STC	116	2
		85-22-05	Nut and bolt replacement		
				27	2
70	3A20	74-24-03	Strobe light system		

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		77-02-04		Wing tip strobe lights	54	2
		77-22-01		Fuselage structure	64	2
		78-11-01		Powerplant fires	69	2
		78-22-05		Elevator control push rods	73	2
		79-01-01		Screws in control system	76	2
		79-01-02	R2	In-flight fires	78	2
		81-23-01	R1	Beech kit or STC	103	2
76	A29CE	78-20-08		Trim tabs push rods	72	2
		79-09-04		Engine starter relay failures	80	2
		79-17-06		Main landing gear	84	2
		79-23-06		Replacing step bolt nuts	85	2
		80-07-06		Rudder and rudder trim tab	92	2
		80-19-12	R1	Engine mount structure	94	2
		82-03-03		Elevator control cable	106	2
77	A30CE	79-23-05		Attachment bolt threads and nut plates	85	2
		80-07-06		Rudder and rudder trim tab	92	2
		80-07-07		Aileron control system	92	2
		80-21-10		Engine mount attachment	95	2
		82-09-03		Shoulder harness protection	107	2
		83-23-03		Balance weight attach bracket instln	111	2
B90	3A20	68-21-04		Ice damage to engine	21	1
		69-04-06		Rudder spar cracks	23	1
		72-20-03		Heater overheat	12	2
		75-08-16		Fuel contamination	30	2
		76-10-10		Cabin door	49	2
		77-02-04		Wing tip strobe lights	54	2
		77-22-01		Fuselage structure	64	2
		78-11-06		Elevator control cable	71	2
		78-22-05		Elevator control push rods	73	2
		79-01-01		Screws in control system	76	2
		80-09-03	R1	Placard - oxygen	93	2
		81-23-01	R1	Beech kit or STC	103	2
		82-23-02		Elevator control	107	2
		85-01-01		Acrylic windows	114	2
		85-22-05		Nut and bolt replacement	116	2
C90	3A20	74-16-04		Restricted elevator travel	25	2
		74-24-03		Strobe light system	27	2
		76-04-02		Seat locking pins	47	2
		76-10-10		Cabin door	49	2
		76-22-02		"Y" type shoulder harness	52	2
		77-02-04		Wing tip strobe lights	54	2
		77-07-04		Rudder control cable	61	2
		77-18-04		Cabin pressurization	64	2
		77-22-01		Fuselage structure	66	2
		78-11-06		Elevator control cable	71	2
		78-22-05		Elevator control push rods	73	2
		79-01-01		Screws in control system	76	2
		80-09-03	R1	Placard - oxygen	93	2
		81-09-01		Landing gear retract system	96	2
		81-23-01	R1	Beech kit or STC	103	2
		85-01-01		Acrylic windows	114	2
		85-22-05		Nut and bolt replacement	116	2
E90	3A20	74-16-04		Restricted elevator travel	25	2
		74-24-03		Strobe light system	27	2
		76-04-02		Seat locking pins	47	2
		76-10-10		Cabin door	49	2
		76-22-02		"Y" type shoulder harness	52	2
		77-02-04		Wing tip strobe lights	54	2
		77-07-04		Rudder control cable	61	2
		77-18-04		Cabin pressurization	64	2
		77-22-01		Fuselage structure	66	2
		78-11-06		Elevator control cable	71	2
		78-22-05		Elevator control push rods	73	2
		79-01-01		Screws in control system	76	2
		80-09-03	R1	Placard - oxygen	93	2
		81-09-01		Landing gear retract system	96	2
		81-23-01	R1	Beech kit or STC	103	2
		85-01-01		Acrylic windows	114	2
		85-22-05		Nut and bolt replacement	116	2
F90	A30CE	80-07-05		Bolt and nut, wing section	88	2
		83-07-14		One-ply window replacement	108	2
		85-22-05		Nut and bolt replacement	116	2
H90 (T-44A)	3A20	80-07-05		Bolt and nut, wing section	88	2
		80-09-03	R1	Placard - oxygen	93	2
		81-09-01		Landing gear retract system	96	2
		85-22-05		Nut and bolt replacement	116	2
95 Series	3A16	84-09-01		Window emer. egress prov.	112	2

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		75-16-10	Elevator trim tab	33	2
B95	3A16	62-08-03	Control wheels	13	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-13-02	Propeller blade vibration	31	2
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B95A	3A16	62-08-03	Control wheels	13	1
		68-26-06	Placard installation	22	1
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-13-02	Propeller blade vibration	31	2
		75-16-10	Elevator trim tab	33	2
D95A	3A16	68-26-06	Placard installation	22	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-13-02	Propeller blade vibration	31	2
		75-16-10	Elevator trim tab	33	2
E95	3A16	68-14-01	Pneumatic de-icer system	20	1
		68-26-06	Placard installation	22	1
		71-24-10	Security of control wheel	4	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		75-13-02	Propeller blade vibration	31	2
		75-16-10	Elevator trim tab	33	2
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		67-29-01	Rudder spar web	19	1
		68-26-06	Placard installation	22	1
		72-01-02	Oil drain tubes	5	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		73-26-08	Roll and pitch servo clamps	20	2
		75-16-10	Elevator trim tab	33	2
95-A55	3A16	62-08-03	Control wheels	13	1
		67-29-01	Rudder spar web	19	1
		68-26-06	Placard installation	22	1
		72-01-02	Oil drain tubes	5	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		73-26-08	Roll and pitch servo clamps	20	2
		75-16-10	Elevator trim tab	33	2
		79-01-01	Screws in control system	76	2
95-B55	3A16	67-29-01	Rudder spar web	19	1
		68-26-06	Placard installation	22	1
		71-24-10	Security of control wheel	4	2
		72-01-02	Oil drain tubes	5	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
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		75-16-10	Elevator trim tab	33	2
		76-22-02	"Y" type shoulder harness	52	2
		77-02-04	Wing tip strobe lights	54	2
		79-01-01	Screws in control system	76	2
95-B55A	3A16	68-26-06	Placard installation	22	1
		71-24-10	Security of control wheel	4	2
		72-01-02	Oil drain tubes	5	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		73-14-03	Landing gear shock strut pistons	16	2
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		75-16-10	Elevator trim tab	33	2
		76-22-02	"Y" type shoulder harness	52	2
		77-02-04	Wing tip strobe lights	54	2
		79-01-01	Screws in control system	76	2
95-B55B	3A16	68-26-06	Placard installation	22	1
		72-01-02	Oil drain tubes	5	2
		72-11-02	Engine fuel interruption	7	2
		75-16-10	Elevator trim tab	33	2

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		73-26-08	Roll and pitch servo clamps	20	2
		75-16-10	Elevator trim tab	33	2
		79-01-01	Screws in control system	76	2
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		72-01-02	Oil drain tubes	5	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
		73-21-02	Failure of flex hose assemblies	17	2
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		68-26-06	Placard installation	22	1
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		72-01-02	Oil drain tubes	5	2
		72-11-02	Engine fuel interruption	7	2
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		73-21-02	Failure of flex hose assemblies	17	2
		73-26-08	Roll and pitch servo clamps	20	2
		75-16-10	Elevator trim tab	33	2
		79-01-01	Screws in control system	76	2
B55A	3A16	68-26-06	Placard installation	22	1
		72-01-02	Oil drain tubes	5	2
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		73-26-08	Roll and pitch servo clamps	20	2
		75-16-10	Elevator trim tab	33	2
		79-01-01	Screws in control system	76	2
C55	3A16	71-24-10	Security of control wheel	4	2
		72-01-02	Oil drain tubes	5	2
		72-11-02	Engine fuel interruption	7	2
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		76-22-02	"Y" type shoulder harness	52	2
		77-02-04	Wing tip strobe lights	54	2
		79-01-01	Screws in control system	76	2
C55A	3A16	72-01-02	Oil drain tubes	5	2
		72-11-02	Engine fuel interruption	7	2
		72-22-01	Landing gear uplock rollers	12	2
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		76-22-02	"Y" type shoulder harness	52	2
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		72-22-01	Landing gear uplock rollers	12	2
		75-16-10	Elevator trim tab	33	2
		79-01-01	Screws in control system	76	2
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		72-22-01	Landing gear uplock rollers	12	2
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		76-13-05		Electrical power	51	2
		76-22-02		"Y" type shoulder harness	52	2
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		72-11-02		Engine fuel interruption	7	2
		73-14-03		Landing gear shock strut piston	16	2
		73-21-02		Failure of flex hose assemblies	17	2
		74-03-02		Landing gear shock strut piston	21	2
		74-12-02		Aft facing seats	23	2
		74-24-03		Strobe light system	27	2
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		76-13-05		Electrical power	51	2
		76-22-02		"Y" type shoulder harness	52	2
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58P	A23CE	76-17-02		Cabin window	52	2
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58PA	A23CE	76-17-02		Cabin window	52	2
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		77-13-08		Right and left truss assembly	62	2
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		79-01-01		Screws in control system	76	2
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A99	A14CE	81-18-08	R3	Revised AFM	98	2
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B99	A14CE	72-10-04	R2	Landing gear system	6	2
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		76-22-03		Elevator control	53	2
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		77-18-04		Cabin pressurization	64	2
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		84-24-01		Wing section panel insp.	114	2
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B200C	A24CE	83-07-14		One-ply window replacement	108	2
		84-24-01		Wing section panel insp.	114	2
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		65-04-01		Freewheeling clutch	27	1
		70-08-02		Tail rotor drive shaft	34	1
		70-10-08		Tail rotor grips	34	1
		73-19-04		Main rotor blade grip	8	2
		74-07-01		Main rotor control tube assy	10	2
		74-08-02		Main control stabilizer bar assy	11	2
		77-21-01		Tail rotor gear boxes	37	2
		78-03-01		Hopper support bracket (STC SH3578W)	38	2
		80-10-04	R1	Tail rotor blades	47	2
		80-21-09	R1	Tail rotor pitch link	50	2
		81-04-03		Tail rotor drive assembly	51	2
		85-08-03		Tail rotor blade assy.	68	2
		86-06-08		Main rotor blade grips ..... Cor. BW	86-07	2
47B All Models	H-1	47-32-07		Manifold pipe chafing	2	1
		47-41-05		Gimbl ring bearing seals	4	1
		47-41-06		Main rotor blade	4	1
		47-41-07		Bungee spring jumper	4	1
		47-41-08		Stabilizer bar mixing levers	5	1
		47-51-11		Pinion gear bearings	5	1
		48-02-01		Tail rotor drive shaft	5	1
		48-03-06		Bushings installation	5	1
		48-10-02		Rotor blade rework	5	1
		48-11-05		Rotor drag brace	6	1
		48-12-05		Shear screw replacement	6	1
		49-47-02		Tail rotor drive shaft	7	1
		49-52-02		Main rotor hub inspection	7	1
		50-38-02		Cooling fan rework	8	1
		51-26-01		Tail rotor reinforcement	8	1
		51-29-01		Tail rotor gearbox shaft	9	1
		52-01-01		Blade grip adapter locks	9	1
		52-01-02		Horns and drag brace fittings	10	1
		52-01-03		Damper lever and link	10	1
		52-01-05		Rotor blade grip retaining bolt	10	1
		54-28-01		Antitorque pedal stops	12	1
		55-05-01		Pitch control link	12	1
		56-20-03		Tail rotor hub bolts	15	1
		58-23-01		Tail rotor pitch change bearings	20	1
		60-10-01		Scissor lever bolts	22	1
47B	H-1	47-32-01		Stabilizer damper clamp	1	1
		47-32-02		Ballast installation	1	1
		47-32-03		Tail rotor control pedal	1	1
		47-32-04		Antitorque rotor blades placard	1	1
		47-32-05		Main rotor mast spinner	1	1
		47-32-06		Rotor hub pillow blocks	2	1
		47-32-08		Stabilizer bar dampers	2	1
		47-32-09		Horizontal stabilizer	2	1
		47-32-10		Rotor mast assy replacement	2	1
		47-32-11		Antenna mast support	3	1
		47-32-12		Control disc links	3	1
		47-32-13		Tail rotor rivet replacement	3	1
		47-32-14		Engine mount clamps	3	1
		47-41-02		Oil line supports	3	1
		47-41-03		Fuel line replacement	4	1
		47-41-04		Main rotor mast plug	4	1
		48-19-01		Damper support frames	6	1
		49-47-02		Tail rotor drive shaft	7	1
		49-52-02		Main rotor hub inspection	7	1
		50-38-02		Cooling fan rework	8	1
		52-28-04		Tail rotor pinion shaft	12	1
		57-12-04		Tail rotor blade inspection	19	1
		58-23-01		Tail rotor pitch change bearings	20	1
		60-10-01		Scissor lever bolts	22	1
		70-11-04		Wood main rotor blades	36	1
		73-19-02		Tail rotor yoke	7	2
		75-18-06		Tail rotor pitch control	20	2
		76-12-01		Tail rotor hub bolt	26	2
		76-12-02		Tail rotor yoke	26	2
		85-15-04		Tail rotor blade yoke P/N 74-641-057-9	69	2
47B3	H-1	47-32-08		Stabilizer bar dampers	2	1
		47-32-09		Horizontal stabilizer	2	1
		47-32-10		Rotor mast assy replacement	2	1
		47-32-11		Antenna mast support	3	1
		47-32-12		Control disc links	3	1
		47-32-13		Tail rotor rivet replacement	3	1
		47-41-02		Oil line supports	3	1
		47-41-03		Fuel line replacement	4	1
		47-41-04		Main rotor mast plug	4	1
		48-19-01		Damper support frames	6	1
		49-47-02		Tail rotor drive shaft	7	1
		49-52-02		Main rotor hub inspection	7	1
		50-38-02		Cooling fan rework	8	1
		51-26-01		Tail rotor reinforcement	8	1

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		52-01-01	Blade grip adapter locks	9	1
		52-01-02	Horn and drag brace fittings	10	1
		52-01-03	Damper lever and link	10	1
		52-01-05	Rotor blade grip retaining bolt	10	1
		52-28-04	Tail rotor pinion shaft	12	1
		54-24-01	Antitorque pedal stops	12	1
		55-05-01	Pitch control link	12	1
		56-20-03	Tail rotor hub bolts	15	1
		57-08-02	Parker check valve	17	1
		57-12-04	Tail rotor blade inspection	19	1
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		70-11-04	Wood main rotor blades	36	1
		73-19-02	Tail rotor yoke	7	2
		75-18-06	Tail rotor pitch control	20	2
		76-12-01	Tail rotor hub bolt	26	2
		76-12-02	Tail rotor yoke	26	2
		85-15-04	Tail rotor blade yoke P/N 74-641-057-9	69	2
47D (USAF H-13B)	H-1	48-10-02	Rotor blade rework	5	1
		48-12-05	Shear screw replacement	6	1
		48-19-01	Damper support frames	6	1
		49-47-02	Tail rotor drive shaft	7	1
		49-52-02	Main rotor hub inspection	7	1
		50-38-02	Cooling fan rework	8	1
		51-26-01	Tail rotor reinforcement	8	1
		51-29-01	Tail rotor gearbox shaft	9	1
		52-01-01	Blade grip adapter locks	9	1
		52-01-02	Horn and drag brace fittings	10	1
		52-01-03	Damper lever and link	10	1
		52-01-05	Rotor blade grip retaining bolt	10	1
		52-28-04	Tail rotor pinion shaft	12	1
		54-24-01	Antitorque pedal stops	12	1
		55-05-01	Pitch control link	12	1
		56-20-03	Tail rotor hub bolts	15	1
		57-08-02	Parker check valve	17	1
		57-12-04	Tail rotor blade inspection	19	1
		58-23-01	Tail rotor pitch change bearings	20	1
		60-10-01	Scissor lever bolts	22	1
		70-11-04	Wood main rotor blades	36	1
		70-14-02	Tail rotor hub assy bolt	37	1
		73-19-02	Tail rotor yoke	7	2
		75-18-06	Tail rotor pitch control	20	2
		76-12-01	Tail rotor hub bolt	26	2
		76-12-02	Tail rotor yoke	26	2
		85-15-04	Tail rotor blade yoke P/N 74-641-057-9	69	2
47D1 (USAF H-13D, -13E, Navy HTL-4, -5)	H-1	49-34-02	Ventral fin inspection	6	1
		49-47-02	Tail rotor drive shaft	7	1
		49-52-02	Main rotor hub inspection	7	1
		50-06-01	Ventral fin replacement	8	1
		50-38-02	Coolin fan rework	8	1
		51-26-01	Tail rotor reinforcement	8	1
		51-29-01	Tail rotor gearbox shaft	9	1
		52-01-01	Blade grip adapter locks	9	1
		52-01-07	Engine cooling fan	10	1
		52-07-01	Loading decal	11	1
		52-28-04	Tail rotor pinion shaft	12	1
		53-01-01	Gearbox mounting sleeve	12	1
		54-24-01	Antitorque pedal stops	12	1
		55-05-01	Pitch control link	12	1
		56-05-01	Tail rotor drive shafts	14	1
		56-20-03	Tail rotor hub bolts	15	1
		57-08-02	Parker check valve	17	1
		57-12-04	Tail rotor blade inspection	19	1
		58-23-01	Tail rotor pitch change bearings	20	1
		60-10-01	Scissor lever bolts	22	1
		70-11-04	Wood main rotor blades	36	1
		70-14-01	Tail rotor pitch	37	1
		70-14-02	Tail rotor hub assy bolt	37	1
		73-19-02	Tail rotor yoke	7	2
		75-18-06	Tail rotor pitch control	20	2
		76-12-01	Tail rotor hub bolt	26	2
		76-12-02	Tail rotor yoke	26	2
		85-15-04	Tail rotor blade yoke P/N 74-641-057-9	69	2
47E (Navy HTL-3)	H-1	54-24-01	Antitorque pedal stops	12	1
		60-10-01	Scissor lever bolts	22	1
		73-19-02	Tail rotor yoke	7	2
		75-18-06	Tail rotor pitch control	20	2
		76-12-02	Tail rotor yoke	26	2
		85-15-04	Tail rotor blade yoke P/N 74-641-057-9	69	2
47G Series (OH-13, TH-13T)	H-1, 2H3	79-23-07	Soloy conversion per STC SH657NM	46	2
		80-10-04 R1	Tail rotor blades	47	2

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		81-04-03	Tail rotor drive assembly	51	2
47G	H-1	54-24-01	Antitorque pedal stops	12	1
(USAF H-13G,		55-05-01	Pitch control link	12	1
Navy HTL-6)		55-14-01	Bearing hanger support bracket	12	1
		55-25-01	Bellcrank attachment bolt	13	1
		56-01-01	Ventral fin support	13	1
		56-05-01	Tail rotor drive shafts	14	1
		56-20-03	Tail rotor hub bolts	15	1
		56-21-01	Hydraulic boost cylinders	15	1
		57-08-02	Parker check valve	17	1
		57-12-04	Tail rotor blade inspection	19	1
		58-23-01	Tail rotor pitch change bearings	20	1
		60-10-01	Scissor lever bolts	22	1
		70-11-04	Wood main rotor blades	36	1
		70-14-01	Tail rotor pitch	37	1
		70-14-02	Tail rotor hub assy bolt	37	1
		72-02-05	Control rod assembly	4	2
		73-19-02	Tail rotor yoke	7	2
		75-18-06	Tail rotor pitch control	20	2
		76-12-01	Tail rotor hub bolt	26	2
		76-12-02	Tail rotor yoke	26	2
		85-15-04	Tail rotor blade yoke P/N 76-641-057-9	69	2
47G-2	H-1	56-01-01	Ventral fin support	13	1
(USAF H-13H)		56-05-01	Tail rotor drive shafts	14	1
		56-20-03	Tail rotor hub bolts	15	1
		56-21-01	Hydraulic boost cylinders	15	1
		57-12-04	Tail rotor blade inspection	19	1
		58-23-01	Tail rotor pitch change bearings	20	1
		58-26-01	Engine cooling fin index plate assy	20	1
		60-10-01	Scissor lever bolts	22	1
		70-11-04	Wood main rotor blades	36	1
		70-14-01	Tail rotor pitch	37	1
		70-14-02	Tail rotor hub assy bolt	37	1
		72-02-05	Control rod assembly	4	2
		73-19-02	Tail rotor yoke	7	2
		75-18-06	Tail rotor pitch control	20	2
		76-12-01	Tail rotor hub bolt	26	2
		76-12-02	Tail rotor yoke	26	2
47G-2A	2H3	61-14-02	Float cross tube	23	1
		72-02-05	Control rod assembly	4	2
		85-02-06	AN/NAS standard bolts	67	2
47G-2A-1	2H3	72-02-05	Control rod assembly	4	2
		85-02-06	AN/NAS standard bolts	67	2
47G-3	2H3	61-14-02	Float cross tube	23	1
		72-02-05	Control rod assembly	4	2
		85-02-06	AN/NAS standard bolts	67	2
		85-15-04	Tail rotor blade yoke P/N 76-641-057-9	69	2
47G-3B, -3B-1, -2, -2A	2H3	72-02-05	Control rod assembly	4	2
		85-02-06	AN/NAS standard bolts	67	2
47G-4, -4A	2H3	72-02-05	Control rod assembly	4	2
		85-02-06	AN/NAS standard bolts	67	2
47G-5, -5A	2H3	72-02-05	Control rod assembly	4	2
		85-02-06	AN/NAS standard bolts	67	2
47H-1	H-1	56-05-01	Tail rotor drive shafts	14	1
		56-15-01	Antitorque control system	14	1
		56-15-03	Elevator control system	15	1
		56-20-03	Tail rotor hub bolts	15	1
		56-21-01	Hydraulic boost cylinders	15	1
		57-07-01	Elevator inspection and rework	16	1
		57-08-02	Parker check valve	17	1
		57-12-01	Elevator control alinement	18	1
		57-12-02	Tail boom attach fittings	18	1
		57-12-04	Tail rotor blade inspection	19	1
		58-23-01	Tail rotor pitch change bearing	20	1
		60-10-01	Scissor lever bolts	22	1
		70-11-04	Wood main rotor blades	36	1
		70-14-01	Tail rotor pitch	37	1
		70-14-02	Tail rotor hub assy bolt	37	1
		73-19-02	Tail rotor yoke	7	2
		75-18-06	Tail rotor pitch control	20	2
		76-12-01	Tail rotor hub bolt	26	2
		76-12-02	Tail rotor yoke	26	2
		85-15-04	Tail rotor blade yoke P/N 76-641-057-9	69	2
47J Series	2H1	57-12-03	Engine sprag spindle	18	1

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		58-02-01	Rotor blade bond separation	19	1
		58-09-01	Main rotor blade inspection	19	1
		58-17-01	Rotor counterweight bracket	20	1
		58-26-01	Engine cooling fan index plate assy	20	1
		60-10-01	Scissor lever bolts	22	1
		61-14-02	Float cross tube	23	1
		62-10-01	Elevator modification	24	1
		72-02-05	Control rod assembly	4	2
		85-02-06	AN/NAS standard bolts	67	2
47J	2H1	61-03-01	Pinion gear	23	1
47J2	2H1	61-14-02	Float cross tube	23	1
		62-10-01	Elevator modifications	24	1
		72-02-05	Control rod assembly	4	2
		85-02-06	AN/NAS standard bolts	67	2
47J-2A	2H1	62-10-01	Elevator modification	24	1
		72-02-05	Control rod assembly	4	2
		85-02-06	AN/NAS standard bolts	67	2
47K	2H1	60-10-01	Scissor lever bolts	22	1
		76-21-05	Tubular spar at elevators	29	2
		85-02-06	AN/NAS standard bolts	67	2
204 Series	H1SW	81-19-02	Main rotor yoke	56	2
204B	H1SW	67-06-01	Tail rotor blades	27	1
		67-24-01	Sliders on tail rotor assy	28	1
		69-15-07	Float kit tube	32	1
		70-06-02	Tail rotor grip assy	33	1
		73-17-04	Tail rotor grips	7	2
		74-23-02	Tail rotor pitch	15	2
		75-26-03	Emergency exit handle	21	2
		75-26-05	Main rotor blades	21	2
		76-02-06	Main rotor blades	22	2
		76-12-07	Tail rotor chains	26	2
		77-17-05	Emergency exit latch pin	36	2
		78-20-07	Shoulder radius fitting	43	2
		78-21-02	External load link assembly	43	2
		79-20-05	Main rotor hub assembly	45	2
		80-17-09	Main rotor straps	48	2
205 Series	H1SW	81-19-02	Main rotor yoke	56	2
205A	H1SW	69-15-07	Float kit tube	32	1
		70-06-02	Tail rotor grip assy	33	1
		71-21-02	Tail fin and boom	2	2
		76-10-01	Tail boom	25	2
		78-21-02	External load link assembly	43	2
205A-1	H1SW	69-15-07	Float kit tube	32	1
		70-06-02	Tail rotor grip assy	33	1
		71-21-02	Tail fin and boom	2	2
		73-16-03	Landing gear cross tubes	6	2
		73-17-04	Tail rotor grips	7	2
		74-02-01	Tail rotor trunnion bearings	10	2
		74-23-02	Tail rotor pitch	15	2
		75-26-03	Emergency exit handle	21	2
		75-26-05	Main rotor blades	21	2
		76-02-06	Main rotor blades	22	2
		76-06-02	Fire extinguisher circuit	24	2
		76-10-01	Tail boom	25	2
		76-12-07	Tail rotor chains	26	2
		76-14-03	Cross tube assemblies	27	2
		77-10-07	Engine-to-transmission assy	34	2
		77-17-03	Tail rotor blade pitch horn	35	2
		77-17-05	Emergency exit latch pin	36	2
		78-14-07	Skid landing gear	40	2
		78-20-07	Shoulder radius fitting	43	2
		78-21-02	External load link assembly	43	2
		79-20-05	Main rotor hub assembly	45	2
		80-03-07	Fuselage main beams splice	46	2
		80-17-09	Main rotor straps	48	2
		80-21-05	Landing gear cross tubes	49	2
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206A	H2SW	67-22-02	Grounding of fuel boost pumps	28	1
		68-04-02	Failure of exhaust stack clamps	29	1
		69-11-02	Cyclic control syst...	29	1
		69-11-04	Control pedal force	30	1
		69-12-07	Magnesium tail boom	31	1
		69-15-02	Magnesium cyclic bellcrank support		

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		70-07-03		Planetary gear support spiders	33	1
		70-14-05		Voltage regulator	38	1
		70-14-06		Fire wall to compressor seal	38	1
		71-08-03		Partial separation kit	1	2
		71-18-04		Main rotor blade spar	1	2
		72-19-01		Main rotor retention straps	4	2
		73-08-03		Pylon support link	5	2
		73-12-01		Vertical fin skin cracks	6	2
		73-19-08		Strap fittings and pins	8	2
		73-19-09		Pitch link assemblies	9	2
		73-21-03		Vertical fin support forgings	9	2
		74-08-12		Tail boom skin splice	14	2
		74-19-03		Horizontal stabilizer ribs	14	2
		74-24-01		Main rotor blade grips	16	2
		74-25-10		Rotor brake disc	17	2
		75-06-03		Pitch link assembly	17	2
		75-06-10		Cabin roof straps	18	2
		75-09-09		Tail rotor control tube	19	2
		75-10-07		Rotor blade pillow block assys	20	2
		76-04-09		Main rotor hub yokes	23	2
		76-15-03		Replacement straps	28	2
		77-10-06		Tail rotor drive shaft	32	2
		78-11-02		Rotor blade straps	39	2
		78-16-01		Tail rotor drive shaft	41	2
		79-10-01		External load carrying devices	44	2
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		80-18-04	R1	Main rotor trunnion	48	2
		81-04-08		Driveshaft assembly	52	2
		81-18-01		Main rotor trunnions	55	2
		85-25-01		Cyclic control stick	72	2
		85-26-06		Tail rotor blades	72	2
206A-1 (OH-58A)	H28W	71-08-03		Partical separation kit	1	2
		72-19-01		Main rotor retention straps	4	2
		73-08-03		Pylon support link	5	2
		73-19-08		Strap fittings and pins	8	2
		73-19-09		Pitch link assemblies	9	2
		74-24-01		Main rotor blade grips	16	2
		75-06-03		Pitch link assembly	17	2
		75-10-07		Rotor blade pillow block assys	20	2
		76-04-09		Main rotor hub yokes	23	2
		76-15-03		Replacement straps	28	2
		78-11-02		Rotor blade straps	39	2
		80-17-05		Tail rotor blades	47	2
		80-18-04	R1	Main rotor trunnion	48	2
		81-18-01		Main rotor trunnions	55	2
		85-26-06		Tail rotor blades	72	2
206B (OH-58B)	H28W	71-18-04		Main rotor blade spar	1	2
		72-19-01		Main rotor retention straps	4	2
		73-08-03		Pylon support link	5	2
		73-12-01		Vertical fin skin cracks	6	2
		73-19-08		Strap fittings and pins	8	2
		73-19-09		Pitch link assemblies	9	2
		73-21-03		Vertical fin support forgings	9	2
		74-08-12		Tail boom skin splice	14	2
		74-19-03		Horizontal stabilizer ribs	14	2
		74-24-01		Main rotor blade grips	16	2
		74-25-10		Rotor brake disc	17	2
		75-06-03		Pitch link assembly	17	2
		75-06-10		Cabin roof straps	18	2
		75-09-09		Tail rotor control tube	19	2
		75-10-07		Rotor blade pillow block assys	20	2
		76-04-09		Main rotor hub yokes	23	2
		76-05-01		Inboard ribs	23	2
		76-15-03		Replacement straps	28	2
		77-10-06		Tail rotor drive shaft	32	2
		78-11-02		Rotor blade straps	39	2
		78-16-01		Tail rotor drive shaft	41	2
		79-10-01		External load carrying devices	44	2
		80-17-05		Tail rotor blades	47	2
		80-18-04	R1	Main rotor trunnion	48	2
		81-04-08		Driveshaft assembly	52	2
		81-18-01		Main rotor trunnions	55	2
		85-25-01		Cyclic control stick	72	2
		85-26-06		Tail rotor blades	72	2
206B-1	H28W	72-19-01		Main rotor retention straps	4	2
		73-08-03		Pylon support link	5	2
		73-19-08		Strap fittings and pins	8	2
		73-19-09		Pitch link assemblies	9	2
		74-24-01		Main rotor blade grips	16	2
		75-06-03		Pitch link assembly	17	2
		75-10-07		Rotor blade pillow block assys	20	2

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		76-04-09	Main rotor hub yokes	23	2
		76-15-03	Replacement straps	28	2
		78-11-02	Rotor blade straps	39	2
		80-17-05	Tail rotor blades	47	2
		80-18-04 R1	Main rotor trunnion	48	2
		81-18-01	Main rotor trunnions	55	2
		85-26-06	Tail rotor blades	72	2
				28	2
206L	H2SW	76-14-05	Fuel system components	39	2
		78-11-02	Rotor blade straps	43	2
		78-24-06 R1	Horizontal stabilizer	47	2
		80-17-05	Tail rotor blades	48	2
		80-18-04 R1	Main rotor trunnion	55	2
		81-18-01	Main rotor trunnions	57	2
		82-05-03	Horizontal stabilizer assembly	63	2
		83-03-04	Damage check of shear heads	69	2
		85-09-04	Main rotor blades	72	2
		85-25-01	Cyclic control stick	72	2
		85-26-06	Tail rotor blades		
				43	2
206L-1, -3	H2SW	78-24-06 R1	Horizontal stabilizer	48	2
		80-18-04 R1	Main rotor trunnion	50	2
		80-22-11	Main rotor grip	53	2
		81-06-05 R1	Fuel/oil line damage	55	2
		81-18-01	Main rotor trunnions	57	2
		82-05-03	Horizontal stabilizer assembly	63	2
		83-03-04	Damage check of shear heads	69	2
		85-09-04	Main rotor blades	72	2
		85-25-01	Cyclic control stick	72	2
		85-26-06	Tail rotor blades		
				10	2
212	H48W	74-02-01	Tail rotor trunnion bearings	13	2
		74-08-03	Tail fin forward spar cap angle	15	2
		74-20-05	Elevator modification	19	2
		75-07-01	High frequency vibration	21	2
		75-26-03	Emergency exit handle	21	2
		75-26-05	Main rotor blades	22	2
		76-02-06	Main rotor blades	27	2
		76-14-03	Cross tube assemblies	30	2
		77-05-02	Main rotor blades	31	2
		77-10-05	Cracks in main rotor blades skin	35	2
		77-17-03	Tail rotor blade pitch horn	36	2
		77-17-05	Emergency exit latch pin	39	2
		78-09-02	Emergency float kits	40	2
		78-14-07	Skid landing gear	42	2
		78-17-03	Spiral bevel gear	43	2
		78-20-07	Shoulder radius fitting	43	2
		78-21-02	External load link assembly	44	2
		79-05-08	Emer. flotation (ditching) equipment	45	2
		79-20-05	Main rotor hub assembly	48	2
		80-17-09	Main rotor straps	49	2
		80-21-05	Landing gear cross tubes	54	2
		81-10-07	Swashplate support	56	2
		81-19-01	Main rotor yoke		
				54	2
214 Series	H6SW & H10SW	81-12-03	Spindle retention bolts		
				58	2
			Tail rotor yoke	71	2
214B Series	H6BW	82-06-07	Main rotor drag brace assembly	71	2
		85-18-06 L	Collective sleeve		
		85-23-05 L		65	2
			Collective sleeves		
214B	H6SW	84-05-51 T		30	2
			Fuselage splice fitting	36	2
214B-1	H6SW	77-03-04	Emergency exit latch pin	38	2
		77-17-05	Tail fin spar	48	2
		78-08-08	Main rotor straps	51	2
		80-17-09	Clutch assembly	65	2
		81-02-10	Collective sleeves		
		84-05-51 T		71	2
			Main rotor drag brace assembly		
214ST Series	H10SW	85-18-06 L		65	2
			Collective sleeves		2
214ST	H10SW	85-05-51 T	Locking plate BW 86-12		2
		86-12-01 L	Main rotor yoke assemblies ... BW 86-12		
		86-12-06		58	2
			Main rotor spar doublers		
222 Series	H9SW	82-16-06		58	2
			Swashplate drive links	60	2
222	H9SW	82-09-53	Walking beam assemblies	64	2
		83-02-51	Main rotor trunnion, torquemeter	66	2
		83-09-03	Support fittings	69	2
		84-12-02	Linkage rivets		
		85-14-11		60	2
			Walking beam assemblies		
222B	H9SW	83-02-51			

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		85-14-11	Linkage rivets	69	2
222U	898W	85-14-11	Linkage rivets	69	2
412	H48W	82-26-51 R1	Yoke assemblies service time	50	2
		85-07-01	Main rotor pitch horn	68	2
		85-17-03 R1	Vertical fin spar	70	2
BELLANCA AIRCRAFT CORPORATION, DELAWARE					
All Models		47-50-13	Hopper aeromatic props	2	1
		48-21-01	Accelerator pump linkage	3	1
CH	ATC 47	76-20-07	Wood decayed wing spars	1	2
CH-300 Pacemaker	ATC 129	76-20-07	Wood decayed wing spars	1	2
300-W Pacemaker	ATC 328	76-20-07	Wood decayed wing spars	1	2
CH-400 Skyrocket	ATC 319	76-20-07	Wood decayed wing spars	1	2
E Pacemaker	ATC 476	76-20-07	Wood decayed wing spars	1	2
F Skyrocket	2-475	76-20-07	Wood decayed wing spars	1	2
14-9, -9L	716	76-20-07	Wood decayed wing spars	1	2
14-12F-3	745	76-20-07	Wood decayed wing spars	1	2
14-13	A-773	46-41-01	Rudder bellcrank replacement	1	1
		46-41-02	Aileron control bushing	1	1
		46-41-03	Control wheel universal joints	1	1
		47-07-01	Fuel selector valve indexing	1	1
		47-14-01	Flap hinge bracket	1	1
		47-25-09	Fin and stabilizer fittings	1	1
		47-32-17	Landing gear inspection covers	2	1
		47-32-18	Sprocket cotter pin	2	1
		47-51-13	Cabin heat control valve	2	1
		48-05-03	Trim tab bracket bolts	3	1
		48-13-06	Engine cowl brackets	3	1
		49-13-02	Landing gear drag strut	3	1
		51-16-01	Trim tab modification	3	1
		52-17-01	Landing gear chain guard	4	1
		52-28-02	Fuel pump relief valve	4	1
		63-06-02	Rudder bellcrank	5	1
		63-17-01	Main landing gear	5	1
		63-20-01	Brake cylinder support bracket	5	1
		76-20-07	Wood decayed wing spars	1	2
		79-19-05	Aileron control system	2	2
14-13-2	A-773	46-41-01	Rudder bellcrank replacement	1	1
		46-41-02	Aileron control bushing	1	1
		46-41-03	Control wheel universal joints	1	1
		47-07-01	Fuel selector valve indexing	1	1
		47-14-01	Flap hinge bracket	1	1
		47-25-09	Fin and stabilizer fittings	1	1
		47-32-17	Landing gear inspection covers	2	1
		47-32-18	Sprocket cotter pin	2	1
		48-05-03	Trim tab bracket bolts	3	1
		48-13-06	Engine cowl brackets	3	1
		49-13-02	Landing gear drag strut	3	1
		51-16-01	Trim tab modification	3	1
		52-17-01	Landing gear chain guard	4	1
		52-28-02	Fuel pump relief valve	4	1
		63-06-02	Rudder bellcrank	5	1
		63-17-01	Main landing gear	5	1
		63-20-01	Brake cylinder support bracket	5	1
		76-20-07	Wood decayed wing spars	1	2
		79-19-05	Aileron control system	2	2
14-13-3	A-773	49-13-02	Landing gear drag strut	3	1
		52-17-01	Landing gear chain guard	4	1
		52-28-02	Fuel pump relief valve	4	1
		63-06-02	Rudder bellcrank	5	1
		63-17-01	Main landing gear	5	1
		63-20-01	Brake cylinder support bracket	5	1
		76-20-07	Wood decayed wing spars	1	2
		79-19-05	Aileron control system	2	2
14-13-3W	A-773	52-17-01	Landing gear chain guard	4	1
		63-06-02	Rudder bellcrank	5	1
		63-17-01	Main landing gear	5	1
		63-20-01	Brake cylinder support bracket	5	1
		76-20-07	Wood decayed wing spars	1	2
		79-19-05	Aileron control system	2	2

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31-42 Pacemaker	2-509, 578	76-20-07	Wood decayed wing spars	1	2
BELLANCA INC., MINNESOTA		47-50-13	Kopper aeromatic propellers	2	1
All Models		48-08-02	(See Cleveland Products, Equipment)		
7 Series	A-759	48-39-01	Control stick rework	3	1
7AC	A-759	47-20-01	Gascolator bowl cleaning	1	1
		47-20-02	Oleo piston	1	1
		47-30-01	Lift strut wing attach fittings	1	1
		47-30-05	Exhaust stack inspection	1	1
		48-04-02	Wing rib rework	2	1
		49-11-02	Wing attach fitting	3	1
87AC	A-759	49-11-02	Wing attach fitting	3	1
7BCM	A-759	47-20-01	Gascolator bowl cleaning	1	1
		49-11-02	Wing attach fitting	3	1
7EC	A-759	56-04-01	Control stick socket	5	1
7ECA	A-759	67-03-02	Fuel shutoff valve bracket	6	1
		71-20-04	Lower fuselage longeron	1	2
		72-20-06	Aerobatic flight placard	4	2
		75-17-16	Engine power loss	8	2
		76-22-01	Adjustable front seat	10	2
		77-22-05	Operating limitations	12	2
		79-22-01	Exhaust system	16	2
		80-21-06	Muffler core and body assys	16	2
		81-16-04	Competition harness installation	17	2
7FC	A-759	57-20-01	Fireproof steering link boot	5	1
7GC Series	A-759	64-04-03	Air door hinge	6	1
		77-22-05	Operating limitations	12	2
		80-21-06	Muffler core and body assys	16	2
7GCA	A-759	64-04-03	Air door hinge	6	1
		77-22-05	Operating limitations	12	2
		80-21-06	Muffler core and body assys	16	2
7GCAA	A-759	67-03-02	Fuel shutoff valve bracket	6	1
		71-20-04	Lower fuselage longeron	1	2
		72-18-03	Corrosion of rudder & elevator cables	3	2
		72-20-06	Aerobatic flight placard	4	2
		75-17-16	Engine power loss	8	2
		76-22-01	Adjustable front seat	10	2
		77-22-05	Operating limitations	12	2
		80-21-06	Muffler core and body assys	16	2
		81-16-04	Competition harness installation	17	2
7GCB	A-759	64-04-03	Air door hinge	6	1
		67-03-02	Fuel shutoff valve bracket	6	1
		77-22-05	Operating limitations	12	2
		80-21-06	Muffler core and body assys	16	2
7GCBA	A-759	64-04-03	Air door hinge	6	1
		80-21-06	Muffler core and body assys	16	2
7GCBC	A-759	67-03-02	Fuel shutoff valve bracket	6	1
		71-20-04	Lower fuselage longeron	1	2
		72-18-03	Corrosion of rudder & elevator cables	3	2
		72-20-06	Aerobatic flight placard	4	2
		75-17-16	Engine power loss	8	2
		76-22-01	Adjustable front seat	10	2
		77-22-05	Operating limitations	12	2
		80-21-06	Muffler core and body assys	16	2
		81-16-04	Competition harness installation	17	2
7HC Series	A-759	64-04-03	Air door hinge	6	1
		77-22-05	Operating limitations	12	2
		80-21-06	Muffler core and body assys	16	2
7KC Series	A-759	64-04-03	Air door hinge	6	1
		80-21-06	Muffler core and body assys	16	2
7KCAB	A-759	71-20-04	Lower fuselage longeron	1	2
		72-18-03	Corrosion of rudder & elevator cables	3	2
		72-20-06	Aerobatic flight placard	4	2
		75-17-16	Engine power loss	8	2
		76-22-01	Adjustable front seat	10	2
		77-22-05	Operating limitations	12	2
		80-21-06	Muffler core and body assys	16	2

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		81-16-04	Competition harness installation	17	2
8ECAB	A21CE	72-18-03	Corrosion of rudder & elevator cables .	3	2
		72-20-06	Aerobatic flight placard	4	2
		74-23-04	Rib flanges	6	2
		75-17-16	Engine power loss	8	2
		76-22-01	Adjustable front seat	10	2
		79-22-01	Exhaust system	16	2
		80-21-06	Muffler core and body assys	16	2
		81-16-04	Competition harness installation	17	2
8GCBC	A21CE	74-15-07	Propeller mounting	6	2
		75-04-12	Markings on tachometer	7	2
		75-17-16	Engine power loss	8	2
		76-22-01	Adjustable front seat	10	2
		79-22-01	Exhaust system	16	2
11AC	A-761	47-20-01	Gascolator bowl cleaning	1	1
		47-20-02	Oleo piston	1	1
		47-30-01	Lift strut wing attach fittings	1	1
		47-30-05	Exhaust stack inspection	1	1
		48-04-02	Wing rib rework	2	1
		48-13-07	Turnbuckle fork replacement	3	1
		49-11-02	Wing attach fitting	3	1
		49-15-01	Seat anchorage rework	4	1
		52-28-01	Fuel transfer placard	4	1
811AC	A-761	48-13-07	Turnbuckle fork replacement	3	1
		49-11-02	Wing attach fitting	3	1
		49-15-01	Seat anchorage rework	4	1
		52-28-01	Fuel transfer placard	4	1
11BC	A-761	48-04-02	Wing rib rework	2	1
		49-11-02	Wing attach fitting	3	1
		49-15-01	Seat anchorage rework	4	1
11CC	A-796	49-11-02	Wing attach fitting	3	1
14-19 Series	1A3	47-50-13	Roppers aeromatic props	2	1
		51-16-02	Trim tab modification	4	1
		53-16-01	Elevator trim tab looseness	5	1
14-19	1A3	63-06-02	Rudder bellcrank	5	1
		76-08-04	Wood deterioration	9	2
14-19-2	1A3	63-06-02	Rudder bellcrank	5	1
		72-01-01	Engine flex hose assys	1	2
		76-08-04	Wood deterioration	9	2
14-19-3	1A3	72-01-01	Engine flex hose assys	1	2
		76-08-04	Wood deterioration	9	2
		77-22-02	Nose landing gear engine mount	11	2
14-19-3A	1A3	68-23-08	Horizontal tail surface	6	1
		69-12-04	Stabilizer strut clevis	7	1
		72-01-01	Engine flex hose assys	1	2
		75-20-06	Vertical tubes	9	2
		76-08-04	Wood deterioration	9	2
		77-22-02	Nose landing gear engine mount	11	2
17-30	1A3	68-23-08	Horizontal tail surface	6	1
		69-12-04	Stabilizer strut clevis	7	1
		71-10-01	Fuel leakage	1	2
		72-01-01	Engine flex hose assys	1	2
		72-13-03	Fuel boost pump circuit	2	2
		75-20-06	Vertical tubes	9	2
		76-08-04	Wood deterioration	9	2
		76-23-03	Exhaust system	11	2
		77-22-02	Nose landing gear engine mount	11	2
17-30A	A18CE	72-01-03	Engine fuel hose	2	2
		73-03-03	Engine induction box bolts	5	2
		73-05-02	Rudder control system	5	2
		75-20-06	Vertical tubes	9	2
		76-08-04	Wood deterioration	9	2
		76-23-03	Exhaust system	11	2
		77-22-02	Nose landing gear engine mount	11	2
17-31	1A3	75-11-06	Check valve	7	2
		75-20-06	Vertical tubes	9	2
		76-08-04	Wood deterioration	9	2
		76-23-03	Exhaust system	11	2
17-31TC	1A3	75-11-06	Check valve	7	2
		75-20-06	Vertical tubes	9	2
		76-08-04	Wood deterioration	9	2

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		72-01-03		Engine fuel hose	2	2
		73-05-02		Rudder control system	5	2
17-31A	A18CE	75-11-06		Check valve	7	2
		75-20-06		Vertical tubes	9	2
		76-08-04		Wood deterioration	9	2
		76-23-03		Exhaust system	11	2
		72-01-03		Engine fuel hose	2	2
		73-05-02		Rudder control system	5	2
17-31ATC	A18CE	75-11-06		Check valve	7	2
		75-20-06		Vertical tubes	9	2
		76-08-04		Wood deterioration	9	2
					1	1
BOEING AIRPLANE CO., WICHITA DIVISION	A-743	46-24-01		Wing drain holes	1	1
A75L3, 75, A-75, B-75,		49-23-01		Fuselage truss	1	1
E-75, A75J-1, D75N1, A75N1,		50-06-02		Wing spar inspection	1	1
B75N1, A75L300 Series		60-08-02		Longeron cracks	2	1
		63-13-01		Inspection of propellers		
BOLKOW - APPARATEBAU GMBH (MESSERSCHMITT)					1	1
Bolkow Jr.	A1EU	69-23-05		Lower engine mount bolts		
BRANTLY HELICOPTER						
(See HYNES, MICHAEL K.)						
BRITISH AEROSPACE (Aircraft Group)					1	1
(Formerly SCOTTISH AVIATION)		70-15-04		Relocating fuel and hydraulic valves	1	2
HP 137 MK.1, Series 200	A21EU	72-23-01		Nacelle fire prevention	1	2
		73-12-10		DC power control box	3	2
		75-17-03		Wing fuselage fittings	5	2
		76-26-04		Flap separation	6	2
		81-09-03	R1	Rudder control	7	2
		81-20-01		NLG actuator support structure	9	2
		82-20-04	R1	NLG hinge fitting & attach bolts	10	2
		83-05-01		Lower wing skins inspection	11	2
		83-05-08	R1	Fuel filter bleed pipe inspection	12	2
		83-07-07		Rudder jamming	13	2
		83-07-15		Cabin differential pressure gauge		
		84-11-05		Placard - Max. flap ext. speed		
				Spigot flange BW 86-10		
	A21EU	85-19-08				
Jetstream 3101					2	2
	A22EU	76-08-03		Flap actuating lever	9	2
B-121 Series 1, 2, 3		83-04-06		Engine mounting structure	10	2
		83-06-06		Rudder control lever assembly	11	2
		83-07-01		Repair scheme incorporation		
					4	2
	A11EU	77-23-05		Wing or empennage assemblies		
B.206 Series 1					4	2
	A11EU	77-23-05		Wing or empennage assemblies	4	2
B.206 Series 2		78-12-02		Exhaust system bellows assembly		
					1	2
BRITTEN-NORMAN, LTD.		75-22-17		Rudder trim control	1	2
(See also PILATUS BRITTEN-NORMAN)	A29EU	75-24-07	R1	Rudder bar units	2	2
BN-2A Mark III		75-26-15		Aileron mass balance	2	2
		76-02-04		Engine mounting frame	3	2
		76-06-05		Pilot's seat	3	2
		76-21-07		Engine mounting	4	2
		77-07-10		Aileron mass balance support arm	5	2
		78-11-08		Elevator and flap control rods	5	2
		79-03-05		Main landing gear	6	2
		79-21-03		Elevator trim tab cable	6	2
		80-14-10		Rudder balance arm brackets	7	2
		82-24-06	R1	Carburetor air box shutter	8	2
		83-03-05		Undercarriage shock absorber	8	2
		83-05-02		Teleflex swivel assembly insp.	9	2
		83-07-12	R1	Fuel transmitter float insp.	10	2
		83-12-02		Rudder drive lever support assy.	10	2
		83-14-02		Wing-to-fuselage attach	11	2
		83-23-01		Wing tank fuel system mod.	12	2
		84-23-06		Engine mounting brackets		2
		84-07-02		Torque link lug & upper case . BW 86-10		
BUSKRAFT GROB FLUGZEUGBAU						
(See GROB-WERKE, SCHEMPP-HIRTH)						

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CALIFORNIA DEPT. OF FORESTRY					
U1-BF	H2NM	80-17-09	Main rotor straps	1	2
		83-03-03	Tail boom skin joint	1	2
		84-18-03 R1	Clevis inspection	2	2
CANAIR AIRCRAFT CORP.					
480	3A2	63-21-05	Main and nose retraction links	1	1
CAPRONI VIZZOLA					
Calif A-21	G29EU	75-18-02	Aileron flutter	1	2
C.A.R.M.A.M.					
(See AER-PEGASO and SOCIETE C.A.R.M.A.M)					
CENTRAIR					
101	G46EU	86-02-04	Tow release cable guide ..... BW 86-02		2
101A	G46EU	86-02-04	Tow release cable guide ..... BW 86-02		2
101P	G46EU	86-02-04	Tow release cable guide ..... BW 86-02		2
101AP	G46EU	86-02-04	Tow release cable guide ..... BW 86-02		2
CESSNA AIRCRAFT CORP.					
2-50	A-722	46-01-01	Flap chain	1	1
(AT-17, UC-78, JRC-1)		46-01-02	Wing covering	1	1
		46-12-01	Fabric inspection	1	1
		46-46-03	Aileron and flap hinge brackets	2	1
		47-05-01	Fuel shutoff valve handle	3	1
		47-30-02	Brake pedal links	4	1
		47-30-03	Wing inspection for I.D.	4	1
		47-30-04	Landing gear chains	5	1
		51-18-01	Rudder torque tube	10	1
		51-25-01	Horizontal stabilizer	11	1
		53-06-01	Landing light motor circuit	12	1
		53-18-01	Goodrich wheel bearing	12	1
		56-21-02	Spar deterioration	13	1
120	A-768	46-44-01	Rudder stop bolts	1	1
		46-44-02	Safety belt bracket reinforcement	1	1
		46-44-03	Windshield retaining channel	2	1
		46-44-04	Carburetor hot air ducts	2	1
		46-44-05	Engine mounting bolts	2	1
		47-06-10	Aileron carry-through bar	3	1
		47-06-11	Forward doorpost cracks	3	1
		47-26-02	Wing leading edge rework	3	1
		47-43-01	Primer line relocation	5	1
		47-43-02	Fuel selector valve handle	5	1
		47-43-03	Seaplane spreader struts	5	1
		47-43-04	Rudder control cable horns	6	1
		47-43-05	Elevator spar web reinforcement	7	1
		47-43-06	Aileron support ribs	7	1
		47-43-08	Beech R003-201 propeller blades	7	1
		47-50-02	Fuselage bulkhead	7	1
		48 05-04	Operator limitations placard	8	1
		48-07-01	Stabilizer attaching bolts	8	1
		48-25-02	Welded exhaust muffler	8	1
		48-25-03	Wing drag wire system	8	1
		50-31-01	Fin spar reinforcement	9	1
		51-21-01	Rudder rib flanges	11	1
		61-25-01	Met-Co-Aire landing gear	14	1
		62-24-03	Cabin heat system	15	1
		79-08-03	Electrical system	71	2
140	A-768	46-44-01	Rudder stop bolts	1	1
		46-44-02	Safety belt bracket reinforcement	1	1
		46-44-03	Windshield retaining channel	2	1
		46-44-04	Carburetor hot air ducts	2	1
		46-44-05	Engine mounting bolts	2	1
		47-06-10	Aileron carry-through bar	3	1
		47-06-11	Forward doorpost cracks	3	1
		47-26-02	Wing leading edge rework	3	1
		47-43-01	Primer line relocation	5	1
		47-43-02	Fuel selector valve handle	5	1
		47-43-03	Seaplane spreader struts	5	1
		47-43-04	Rudder control cable horns	6	1
		47-43-05	Elevator spar web reinforcement	7	1
		47-43-06	Aileron support ribs	7	1
		47-43-08	Beech R003-201 propeller blades	7	1
		47-50-02	Fuselage bulkhead	7	1

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		48-05-04		Operator limitations placard	8	1
		48-07-01		Stabilizer attaching bolts	8	1
		48-25-02		Welded exhaust muffler	8	1
		48-25-03		Wing drag wire system	9	1
		50-31-01		Fin spar reinforcement	11	1
		51-21-01		Rudder rib flanges	14	1
		61-25-01		Met-Co-Aire landing gear	15	1
		62-24-03		Cabin heat system	71	2
		79-08-03		Electrical system		
140A	5A2	61-25-01		Met-Co-Aire landing gear	14	1
		62-24-03		Cabin heat system	15	1
		79-10-14		Fuel tank venting	73	2
150 Series	3A19	62-22-01		Vacuum pump modification	15	1
		67-03-01		Exhaust gas heat exchangers	17	1
		68-17-04		Stall warning system	19	1
		71-22-02		Cracks in nose gear fork	3	2
		79-08-03		Electrical system	71	2
		79-10-14		Fuel tank venting	73	2
150	3A19	73-23-07		Defective spar attach fittings	16	2
		74-06-02		AVCON mufflers	18	2
		75-15-08		Engine lubrication	23	2
		77-02-09		Wing flap system	49	2
150A	3A19	75-15-08		Engine lubrication	23	2
150B	3A19	75-15-08		Engine lubrication	23	2
150C	3A19	75-15-08		Engine lubrication	23	2
150D	3A19	75-15-08		Engine lubrication	23	2
		83-17-06		Aileron balance weights	106	2
150E	3A19	75-15-08		Engine lubrication	23	2
		83-17-06		Aileron balance weights	106	2
150F	3A19	72-03-03	R3	Wing flap jack screw	6	2
		75-15-08		Engine lubrication	23	2
		80-11-04		Cracked nutplates	90	2
		83-17-06		Aileron balance weights	106	2
150G	3A19	67-31-04		Removal of glove compartment	18	1
		72-03-03	R3	Wing flap jack screw	6	2
		75-15-08		Engine lubrication	23	2
		80-11-04		Cracked nutplates	90	2
		83-17-06		Aileron balance weights	106	2
150H	3A19	67-31-04		Removal of glove compartment	18	1
		72-03-03	R3	Wing flap jack screw	6	2
		75-15-08		Engine lubrication	23	2
		80-11-04		Cracked nutplates	90	2
		83-17-06		Aileron balance weights	106	2
150J	3A19	72-03-03	R3	Wing flap jack screw	6	2
		75-15-08		Engine lubrication	23	2
		80-11-04		Cracked nutplates	90	2
		83-17-06		Aileron balance weights	106	2
150K	3A19	72-03-03	R3	Wing flap jack screw	6	2
		75-15-08		Engine lubrication	23	2
		80-11-04		Cracked nutplates	90	2
		83-17-06		Aileron balance weights	106	2
150L	3A19	72-03-03	R3	Wing flap jack screw	6	2
		75-15-08		Engine lubrication	23	2
		80-11-04		Cracked nutplates	90	2
		83-17-06		Aileron balance weights	106	2
150M	3A19	80-06-03		Wing flap cable clamp	85	2
		80-11-04		Cracked nutplates	90	2
A150 Series	3A19	79-08-03		Electrical system	71	2
		79-10-14		Fuel tank venting	73	2
A150	3A19	73-23-07		Defective spar attach fittings	16	2
		77-02-09		Wing flap System	48	2
A150K	3A19	72-03-03	R3	Wing flap jack screw	6	2
		75-15-08		Engine lubrication	23	2
		76-01-01		High speed flutter	38	2
		79-08-03		Electrical system	71	2
		80-11-04		Cracked nutplates	90	2
A150L	3A19	72-03-03	R3	Wing flap jack screw	6	2

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		76-01-01		High speed flutter	38	2
		80-11-04		Cracked nutplates	90	2
A150M	3A19	78-25-07		Vertical fin attach brackets	68	2
		80-06-03		Wing flap cable clamp	85	2
		80-11-04		Cracked nutplates	90	2
F150F (Reims)	A13EU	72-03-03	R3	Wing flap jack screw	6	2
		80-11-04		Cracked nutplates	90	2
F150G (Reims)	A13EU	72-03-03	R3	Wing flap jack screw	6	2
		80-11-04		Cracked nutplates	90	2
F150H (Reims)	A13EU	72-03-03	R3	Wing flap jack screw	6	2
		80-11-04		Cracked nutplates	90	2
F150J (Reims)	A13EU	72-03-03	R3	Wing flap jack screw	6	2
		80-11-04		Cracked nutplates	90	2
F150K (Reims)	A13EU	72-03-03	R3	Wing flap jack screw	6	2
		80-11-04		Cracked nutplates	90	2
F150L (Reims)	A13EU	72-03-03	R3	Wing flap jack screw	6	2
		80-11-04		Cracked nutplates	90	2
F150M (Reims)	A13EU	80-11-04		Cracked nutplates	90	2
FA150K (Reims)	A13EU	72-03-03	R3	Wing flap jack screw	6	2
		76-01-01		High speed flutter	38	2
		80-11-04		Cracked nutplates	90	2
FA150L (Reims)	A13EU	72-03-03	R3	Wing flap jack screw	6	2
		76-01-01		High speed flutter	38	2
		80-11-04		Cracked nutplates	90	2
FRA150L	A13EU	80-11-04		Cracked nutplates	90	2
FRA150M	A13EU	80-11-04		Cracked nutplates	90	2
152	3A19	79-02-06		Exhaust system	69	2
		80-01-06		Flap actuator assembly	82	2
		80-06-03		Wing flap cable clamp	85	2
		80-11-04		Cracked nutplates	90	2
		81-05-01		Fuel tank capacity	95	2
		83-22-06		Aileron hinge pin	107	2
A152	3A19	78-25-07		Vertical fin attach brackets	68	2
		79-02-06		Exhaust system	69	2
		80-01-06		Flap actuator assembly	82	2
		80-06-03		Wing flap cable clamp	85	2
		80-11-04		Cracked nutplates	90	2
		81-05-01		Fuel tank capacity	95	2
		83-22-06		Aileron hinge pin	107	2
F152 (Reims)	A13EU	80-01-06		Flap actuator assembly	82	2
		80-11-04		Cracked nutplates	90	2
		83-22-06		Aileron hinge pin	107	2
FA152 (Reims)	A13EU	80-01-06		Flap actuator assembly	82	2
		80-11-04		Cracked nutplates	90	2
		83-22-06		Aileron hinge pin	107	2
170 Series	799	48-03-02		Continental C-145-2 engines	9	1
		69-15-03		Muffler assembly	22	1
		73-17-01		Fuel transfer pump placard	15	2
		79-08-03		Electrical system	71	2
		79-10-14		Fuel tank venting	73	2
170	799	74-06-02		AVCON mufflers	18	2
170A	799	82-07-02		Engine crankcase breather	101	2
170B	799	82-07-02		Engine crankcase breather	101	2
172 Series	3A12	58-08-02		Exhaust heater inspection	14	1
		69-15-03		Muffler assembly	22	1
		71-18-01		Fuel selector valve placard	3	2
		71-22-02		Cracks in nose gear fork	3	2
		73-17-01		Fuel transfer pump placard	5	2
		74-04-01		Aft fuselage bulkhead assy	17	2
		79-04-03		Electrical system	71	2
		79-10-14		Fuel tank venting	73	2
172	3A12	59-10-03		Flasher switch	14	1
		72-07-02		Selector valve placard	8	2

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		73-23-07		Defective spar attach fittings	16	2
		74-06-02		AVCON mufflers	18	2
		77-02-09		Wing flap system	48	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172A	3A12	72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172B	3A12	68-19-05		Utility category placard	20	1
		72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172C	3A12	68-19-05		Utility category placard	20	1
		72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172D	3A12	68-19-05		Utility category placard	20	1
		72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172E	3A12	68-19-05		Utility category placard	20	1
		72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172F	3A12	68-19-05		Utility category placard	20	1
		72-03-03	R3	Wing flap jack screw	6	2
		72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172G	3A12	68-19-05		Utility category placard	20	1
		72-03-03	R3	Wing flap jack screw	6	2
		72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172H	3A12	68-17-04		Stall warning system	19	1
		72-03-03	R3	Wing flap jack screw	6	2
		72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172I	3A12	68-17-04		Stall warning system	19	1
		70-10-06		Oil pressure instrument line	24	1
		72-03-03	R3	Wing flap jack screw	6	2
		72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172K	3A12	70-10-06		Oil pressure instrument line	24	1
		72-03-03	R3	Wing flap jack screw	6	2
		72-07-02		Selector valve placard	8	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172L	3A12	72-03-03	R3	Wing flap jack screw	6	2
		76-04-03		ARC PA-500A actuators	39	2
		82-07-02		Engine crankcase breather	101	2
		83-17-06		Aileron balance weights	106	2
172M	3A12	76-04-03		ARC PA-500A actuators	39	2
		76-21-06		Loss of engine oil	47	2
		77-12-08		External elec. ground power recep	52	2
		82-07-02		Engine crankcase breather	101	2
		83-10-03		Control wheel yoke guide mod.	104	2
		83-17-06		Aileron balance weights	106	2
172N	3A12	76-21-06		Loss of engine oil	47	2
		77-12-08		External elec. ground power recep	52	2
		80-04-08		Fuel lines	84	2
		80-06-03		Wing flap cable clamp	85	2
		81-05-01		Fuel tank capacity	95	2
		81-16-09		Elevator control system	98	2
		82-07-02		Engine crankcase breather	101	2
		83-10-03		Control wheel yoke guide mod.	104	2
		83-17-06		Aileron balance weights	106	2
		83-22-06		Aileron hinge pin	107	2
172P	3A12	81-05-01		Fuel tank capacity	95	2
		81-16-09		Elevator control system	98	2

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		82-07-02		Engine crankcase breather	101	2
		83-10-03		Control wheel yoke guide mod.	104	2
		83-17-06		Aileron balance weights	106	2
		83-22-06		Aileron hinge pins	107	2
172Q	3A12	83-22-06		Aileron hinge pin	107	2
F172 (Reims)	A4EU	81-16-09		Elevator control system	98	2
		83-10-03		Control wheel yoke guide mod.	104	2
F172F (Reims)	A4EU	72-03-03	R3	Wing flap jack screw	6	2
F172G (Reims)	A4EU	72-03-03	R3	Wing flap jack screw	6	2
F172H (Reims)	A4EU	68-17-04		Stall warning system	19	1
		72-03-03	R3	Wing flap jack screw	6	2
F172K (Reims)	A4EU	72-03-03	R3	Wing flap jack screw	6	2
		76-04-03		ARC PA-500A actuators	39	2
F172L (Reims)	A4EU	76-04-03		ARC PA-500A actuators	39	2
F172M (Reims)	A4EU	76-04-03		ARC PA-500A actuators	39	2
F172N (Reims)	A4EU	80-04-08		Fuel lines	84	2
		83-22-06		Aileron hinge pin	107	2
F172P (Reims)	A4EU	83-22-06		Aileron hinge pin	107	2
FR172 (Reims)	A18EU	81-16-09		Elevator control system	98	2
		83-10-03		Control wheel yoke guide mod.	104	2
FR172E (Reims)	A18EU	72-03-03	R3	Wing flap jack screw	6	2
FR172F (Reims)	A18EU	72-03-03	R3	Wing flap jack screw	6	2
FR172G (Reims)	A18EU	72-03-03	R3	Wing flap jack screw	6	2
FR172H (Reims)	A18EU	72-03-03	R3	Wing flap jack screw	6	2
		76-04-03		ARC PA-500A actuators	39	2
FR172J (Reims)	A18EU	76-04-03		ARC PA-500A actuators	39	2
FR172K (Reims)	A18EU	80-04-08		Fuel lines	84	2
		83-22-06		Aileron hinge pin	107	2
172RG	3A17	80-01-06		Flap actuator assembly	82	2
		80-19-08		Fuel/air mixture	92	2
		81-05-01		Fuel tank capacity	95	2
		81-14-06		Rudder trim/nose gear steering bungee	97	2
		81-16-09		Elevator control system	98	2
		83-14-04		Cabin heater shroud mod.	105	2
		83-22-06		Aileron hinge pin	107	2
		85-20-01		Cabin heat deactivated ..... SW 86-01		2
R172D	3A17	79-08-03		Electrical system	72	2
		79-10-14		Fuel tank venting	71	2
		82-07-02		Engine crankcase breather	101	2
R172 Series	3A17	79-08-03		Electrical system	72	2
		79-10-14		Fuel tank venting	71	2
R172	3A17	77-02-09		Wing flap system	48	2
		79-08-03		Electrical system	72	2
R172E (T-41B, -41C, -41D)	3A17	72-03-03	R3	Wing flap jack screw	6	2
		73-20-04		Fuel boost electrical circuit	15	2
		82-07-02		Engine crankcase breather	101	2
R172F (T-41D, -41C)	3A17	72-03-03	R3	Wing flap jack screw	6	2
R172G (T-41D)	3A17	72-03-03	R3	Wing flap jack screw	6	2
R172H (T-41D)	3A17	72-03-03	R3	Wing flap jack screw	6	2
R172K	3A17	77-12-08		External elec. ground power recep	52	2
		80-04-08		Fuel lines	84	2
		80-06-03		Wing flap cable clamp	85	2
		80-07-03		Oil pressure	87	2
		81-05-01		Fuel tank capacity	95	2
		81-16-09		Elevator control system	98	2
		83-10-03		Control wheel yoke guide mod.	104	2
		83-22-06		Aileron hinge pin	107	2

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		71-22-02		Cracks in nose gear fork	3	2
		73-17-01		Fuel transfer pump placard	15	2
		79-08-03		Electrical system	72	2
		79-10-14		Fuel tank venting	71	2
175	3A17	62-22-01		Vacuum pump modification	15	1
		74-06-02		AVCON mufflers	18	2
		82-07-02		Engine crankcase breather	101	2
175A	3A17	62-22-01		Vacuum pump modification	15	1
		82-07-02		Engine crankcase breather	101	2
175B	3A17	62-22-01		Vacuum pump modification	15	1
		82-07-02		Engine crankcase breather	101	2
175C	3A17	62-22-01		Vacuum pump modification	15	1
		82-07-02		Engine crankcase breather	101	2
177 Series	A12CE	70-24-04		Fuel shut-off valve	25	1
		71-01-03		Cracks in stabilizer attachment angles	1	2
		79-08-03		Electrical system	72	2
		79-10-14		Fuel tank venting	71	2
177	A13CE	68-07-09		Longitudinal control system	18	1
		68-17-04		Stall warning system	19	1
		68-18-02		Oil pressure line	19	1
		70-01-02		Fuel quantity transmitter float	23	1
		71-24-04		Flexible hoses in engine compartment	4	2
		72-03-03	R3	Wing flap jack screw	6	2
		74-16-06		Oil Pressure gage line	18	2
		75-07-02		Air filter seal	21	2
177A	A13CE	70-01-02		Fuel quantity transmitter float	23	1
		71-01-03		Cracks in stabilizer attachment angles	1	2
		72-03-03	R3	Wing flap jack screw	6	2
177B	A13CE	72-03-03	R3	Wing flap jack screw	6	2
		76-04-03		ARC PA-500A actuators	39	2
		76-14-08		Trim tab actuator	45	2
		76-21-06		Loss of engine oil	47	2
		77-12-08		External elec. ground power recep	52	2
177RG	A20CE	72-03-03	R3	Wing flap jack screw	6	2
		74-16-06		Oil pressure gage line	18	2
		75-07-02		Air filter seal	21	2
		76-04-03		ARC PA-500A actuators	39	2
		76-14-08		Trim tab actuator	45	2
		76-21-06		Loss of engine oil	47	2
		77-12-08		External elec. ground power recep	52	2
		79-08-03		Electrical system	71	2
F177RG (Reims)	A26EU	72-03-03	R3	Wing flap jack screw	6	2
		74-16-06		Oil pressure gage line	18	2
		75-07-02		Air filter seal	21	2
		76-04-03		ARC PA-500A actuators	39	2
180 Series	5A6	68-17-04		Stall warning system	19	1
		73-17-01		Fuel transfer pump placard	15	2
		75-16-01		Wing fuel tanks	24	2
		77-04-05		Carburetor air intake	49	2
		79-08-03		Electrical system	71	2
		79-10-14		Fuel tank venting	73	2
		79-25-07		Alternator ground	81	2
		84-10-01		Bladder fuel cells	111	2
180	5A6	59-10-03		Flasher switch	14	1
		73-23-07		Defective spar attach fittings	16	2
		80-10-01		Airglas Engrg. ski installation	89	2
		83-17-06		Aileron balance weights	106	2
180A	5A6	59-10-03		Flasher switch	14	1
		80-10-01		Airglas Engrg. ski installation	89	2
		83-17-06		Aileron balance weights	106	2
180B	5A6	80-10-01		Airglas Engrg. ski installation	89	2
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		80-10-01	Airglas Engrg. ski installation	89	2
		83-17-06	Aileron balance weights	106	2
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		83-17-06	Aileron balance weights	106	2
		83-22-06	Aileron hinge pin	107	2
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		72-07-09	Cracks and loose bolts in fin & rudder .	9	2
		73-17-01	Fuel transfer pump placard	15	2
		75-16-01	Wing fuel tanks	24	2
		77-04-05	Carburetor air intake	49	2
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		79-08-03	Electrical system	71	2
		79-10-14	Fuel tank venting	73	2
		79-25-07	Alternator ground	81	2
		84-10-01	Bladder fuel cells	111	2
182	3A13	59-10-03	Flasher switch	14	1
		73-23-07	Defective spar attachment fitting	16	2
		75-05-02	Engine oil	20	2
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182F	3A13	72-03-03 R3	Wing flap jack screw	6	2
		75-05-02	Engine oil	20	2
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		83-17-06	Aileron balance weights	106	2
182G	3A13	72-03-03 R3	Wing flap jack screw	6	2
		75-05-02	Engine oil	20	2
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182H	3A13	72-03-03 R3	Wing flap jack screw	6	2
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182J	3A13	72-03-03 R3	Wing flap jack screw	6	2
		75-05-02	Engine oil	20	2
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182K	3A13	72-03-03 R3	Wing flap jack screw	6	2
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		75-05-02	Engine oil	20	2
		83-13-01	Placard - improper fuel cap sealing ...	105	2
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182N	3A13	72-03-03 R3	Wing flap jack screw	6	2
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		83-13-01	Placard - improper fuel cap sealing ...	105	2
		83-17-06	Aileron balance weights	106	2
		83-22-06	Aileron hinge pin	107	2
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		83-17-06	Aileron balance weights	106	2
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		83-22-06	Aileron hinge pin	107	2
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A182J	3A13	72-03-03 R3	Wing flap jack screw	6	2
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F182 Series	3A13	84-10-01	Bladder fuel cells	111	2
F182	A42EU	79-25-07	Alternator ground	81	2
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FR182	A42EU	83-22-06	Aileron hinge pin	107	2
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		79-08-03	Electrical system	71	2
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		84-10-01	Bladder fuel cells	111	2
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		84-10-01		Bladder fuel cells	111	2
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		77-04-05		Carburetor air intake	49	2
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A188	A9CE	68-07-07		Rudder pedal assembly	18	1
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A188B	A9CE	74-23-07		Air inlet duct	20	2
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		79-10-14		Fuel tank venting	73	2
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		84-10-01		Bladder fuel cells	111	2
P206	A4CE	69-08-11		Fuel boost pump	20	1
		71-24-04		Flexible hoses in engine compartment	4	2
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	A4CE	72-03-03 R3	Fuel selector	114	2
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U206 Series	A4CE	75-16-01	Fuel selector valve	53	2
		77-16-05	Electrical system	71	2
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U206	A4CE	71-24-04	Wing flap jack screw	6	2
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	A4CE	71-24-04	Wing flap jack screw	6	2
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		85-02-07	Throttle and mixture controls	114	2
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U206B		72-03-03 R3	Fuel selector	114	2
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U206C		72-03-03 R3	Fuel selector	114	2
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			79-15-01		Fuel flow distribution	77	2
2			79-25-07		Alternator ground	81	2
2			84-10-01		Bladder fuel cells	111	2
2							
2		A16CE	72-03-03	R3	Wing flap jack screw	6	2
2	207		76-04-03		ARC PA-500A actuators	39	2
2			77-12-08		External elec. ground power recep	52	2
2			85-02-07		Fuel selector	114	2
2			85-03-01		Throttle and mixture controls	114	2
2			85-10-02		Engine induction airbox	115	2
2			85-17-07		Wing rear spar ..... Cor. BW 86-06		2
2		A16CE	77-12-08		External elec. ground power recep	52	2
2	207A		85-02-07		Fuel selector	114	2
2			85-10-02		Engine induction airbox	115	2
2			85-17-07		Wing rear spar ..... Cor. BW 86-06		2
2		A16CE	71-09-07		Exhaust gases entering cabin	2	2
2	T207 Series		72-07-09		Cracks and loose bolts in fin & rudder .	9	2
2			75-16-01		Wing fuel tanks	24	2
2			77-16-05		Fuel selector valve	53	2
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2			79-10-14		Fuel tank venting	73	2
2			79-15-01		Fuel flow distribution	77	2
2			79-25-07		Alternator ground	81	2
2			80-07-01		Oil pressure	86	2
			84-10-01		Bladder fuel cells	111	2
2		A16CE	72-03-03	R3	Wing flap jack screw	6	2
2	T207		76-04-03		ARC PA-500A actuators	39	2
2			77-12-08		External elec. ground power recep	52	2
			85-02-07		Fuel selector	114	2
2			85-03-01		Throttle and mixture controls	114	2
2			85-17-07		Wing rear spar ..... Cor. BW 86-06		2
2		A16CE	77-12-08		External elec. ground power recep	52	2
2	T207A		79-03-03		Engine oil pressure	70	2
2			85-02-07		Fuel selector	114	2
2			85-17-07		Wing rear spar ..... Cor. BW 86-06		2
2							
2		A37CE	86-09-08		Placard - Cessna P/N 2605030-1 BW 86-09		2
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2		3A21	72-07-09		Cracks and loose bolts in fin & rudder .	9	2
2	210 Series		77-16-05		Fuel selector valve	53	2
			79-08-03		Electrical system	71	2
2			79-10-14		Fuel tank venting	73	2
2			79-15-01		Fuel flow distribution	77	2
2			79-25-07		Alternator ground	81	2
2			84-10-01		Bladder fuel cells	111	2
2		3A21	66-19-02		Fuel system	17	1
2	210		69-08-11		Fuel boost pump	20	1
2			76-04-01		Main gear extension	38	2
2			76-14-07	R2	Landing gear saddles	42	2
2		3A21	66-19-02		Fuel system	17	1
2	210A		76-04-01		Main gear extension	38	2
2			76-14-07	R2	Landing gear saddles	42	2
2							
		3A21	76-04-01		Main gear extension	38	2
2	210B		76-14-07	R2	Landing gear saddles	42	2
2			85-03-01		Throttle and mixture controls	114	2
2							
		3A21	76-04-01		Main gear extension	38	2
2	210C		76-14-07	R2	Landing gear saddles	42	2
2			85-03-01		Throttle and mixture controls	114	2
2							
		3A21	71-24-04		Flexible hoses in engine compartment ..	4	2
2	210D		72-03-03	R3	Wing flap jack screw	6	2
2			76-04-01		Main gear extension	38	2
2			76-14-07	R2	Landing gear saddles	42	2
2			85-03-01		Throttle and mixture controls	114	2
			85-10-02		Engine induction airbox	115	2
2							
2		3A21	71-24-04		Flexible hoses in engine compartment ..	4	2
2	210E		72-03-03	R3	Wing flap jack screw	6	2
2			76-14-07	R2	Landing gear saddles	42	2
2			85-03-01		Throttle and mixture controls	114	2
			85-10-02		Engine induction airb	115	2
2							
2	210F	3A21	71-24-04		Flexible hoses in engine compartment ..	4	2
2							
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		72-07-09	Cracks and loose bolts in fin & rudder	9	2
		77-16-05	Fuel selector valve	53	2
		78-07-01	Engine oil pump	57	2
		79-08-03	Electrical system	71	2
		79-10-14	Fuel tank venting	73	2
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T210	3A21	69-08-11	Fuel boost pump	20	1
T210F	3A21	71-24-04	Flexible hoses in engine compartment	4	2
		72-03-03 R3	Wing flap jack screw	6	2
		76-14-07 R2	Landing gear saddles	42	2
		85-03-01	Throttle and engine mixture	114	2
210G	3A21	71-24-04	Flexible hoses in engine compartment	4	2
		72-03-03 R3	Wing flap jack screw	6	2
		76-14-07 R2	Landing gear saddles	42	2
		78-26-12	Fuel quantity system	68	2
		85-02-07	Fuel selector	114	2
		85-03-01	Throttle and mixture controls	114	2
		85-10-02	Engine induction airbox	115	2
T210G	3A21	71-24-04	Flexible hoses in engine compartment	4	2
		72-03-03 R3	Wing flap jack screw	6	2
		76-14-07 R2	Landing gear saddles	42	2
		78-26-12	Fuel quantity system	68	2
		85-02-07	Fuel selector	114	2
		85-03-01	Throttle and mixture controls	114	2
210H	3A21	71-24-04	Flexible hoses in engine compartment	4	2
		72-03-03 R3	Wing flap jack screw	6	2
		76-14-07 R2	Landing gear saddles	42	2
		78-26-12	Fuel quantity system	68	2
		85-02-07	Fuel selector	114	2
		85-03-01	Throttle and mixture controls	114	2
		85-10-02	Engine induction airbox	115	2
T210H	3A21	71-24-04	Flexible hoses in engine compartment	4	2
		72-03-03 R3	Wing flap jack screw	6	2
		76-14-07 R2	Landing gear saddles	42	2
		78-26-12	Fuel quantity system	68	2
		85-02-07	Fuel selector	114	2
		85-03-01	Throttle and mixture controls	114	2
210J	3A21	72-03-03 R3	Wing flap jack screw	6	2
		76-14-07 R2	Landing gear saddles	42	2
		78-26-12	Fuel quantity system	68	2
		85-02-07	Fuel selector	114	2
		85-03-01	Throttle and mixture controls	114	2
		85-10-02	Engine induction airbox	115	2
T210J	3A21	72-03-03 R3	Wing flap jack screw	6	2
		76-14-07 R2	Landing gear saddles	42	2
		78-26-12	Fuel quantity system	68	2
		85-02-07	Fuel selector	114	2
		85-03-01	Throttle and mixture controls	114	2
210K	3A21	72-03-03 R3	Wing flap jack screw	6	2
		76-04-03	ARC PA-500A actuators	39	2
		80-21-03	Roll axis flight control	94	2
		85-02-07	Fuel selector	114	2
		85-10-02	Engine induction airbox	115	2
210L	3A21	76-04-03	ARC PA-500A actuators	39	2
		77-12-08	External elec. ground power recep	52	2
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		85-02-07	Fuel selector	114	2
		85-10-02	Engine induction airbox	115	2
(205) 210-5	3A21	69-08-11	Fuel boost pump	20	1
		72-03-03 R3	Wing flap jack screw	6	2
		72-07-09	Cracks and loose bolts in fin & rudder	9	2
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		72-03-03	R3	Wing flap jack screw	6	2
(205A) 210-5A	3A21	72-07-09		Cracks & loose bolts in fin & rudder	9	2
		79-08-03		Electrical system	71	2
		84-10-01		Bladder fuel cells	111	2
		85-02-07		Fuel selector	114	2
		76-04-03		ARC PA-500A actuators	39	2
T210K	3A21	80-21-03		Roll axis flight control	94	2
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		80-21-03		Roll axis flight control	94	2
		82-06-10		Vacuum-driven-attitude instruments	100	2
		85-02-07		Fuel selector	114	2
		78-11-05		Autopilot actuator	65	2
		78-26-12		Fuel quantity system	68	2
210M	3A21	79-19-06		Fuel flow system per STC SA3835WE	79	2
		80-21-03		Roll axis flight control	94	2
		82-06-10		Vacuum-driven-attitude instruments	100	2
		85-02-07		Fuel selector	114	2
		85-10-02		Engine induction airbox	115	2
		78-11-05		Autopilot actuator	65	2
		78-26-12		Fuel quantity system	68	2
T210M	3A21	79-03-03		Engine oil pressure	70	2
		79-19-06		Fuel flow system per STC SA3835WE	79	2
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		82-06-10		Vacuum-driven-attitude instruments	100	2
		85-02-07		Fuel selector	114	2
		78-26-12		Fuel quantity system	68	2
210N	3A21	80-21-03		Roll axis flight control	94	2
		82-06-10		Vacuum-driven-attitude instruments	100	2
		85-02-07		Fuel selector	114	2
		85-10-02		Engine induction airbox	115	2
		78-11-05		Autopilot actuator	65	2
		78-26-12		Fuel quantity system	68	2
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		85-11-05	R1	AFM placard - icing condition		2
T303	A36CE	85-23-06		Fuel metering units insp. .... BW 86-03		2
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		72-14-08	R1	Flexible hose assemblies	11	2
		73-07-07		Fuel Hoses & electrical wiring chafing	13	2
		69-12-03		Fuel crossfeed line	21	1
310	3A10	69-15-09		Fuel starvation	23	1
		74-20-08		Fire procedures checklist	19	2
		76-08-02	R2	Wing tip nose cap	40	2
310A (0-3A)	3A10	69-12-03		Fuel crossfeed line	21	1
		69-15-09		Fuel starvation	23	1

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		69-15-09		Fuel starvation	23	1
		70-20-08		Fire procedures checklist	19	2
		76-08-02	R2	Wing tip nose cap	40	2
310C	3A10	69-12-03		Fuel crossfeed line	21	1
		69-15-09		Fuel starvation	23	1
		76-08-02	R2	Wing tip nose cap	40	2
310D	3A10	69-12-03		Fuel crossfeed line	21	1
		69-15-09		Fuel starvation	23	1
		76-08-02	R2	Wing tip nose cap	40	2
310E (D-3E)	3A10	69-12-03		Fuel crossfeed line	21	1
		69-15-09		Fuel starvation	23	1
		76-08-02	R2	Wing tip nose cap	40	2
310F	3A10	69-12-03		Fuel crossfeed line	21	1
		69-15-09		Fuel starvation	23	1
		76-08-02	R2	Wing tip nose cap	40	2
310G	3A10	69-14-01		Fuel starvation	21	1
		76-08-02	R2	Wing tip nose cap	40	2
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		76-08-02	R2	Wing tip nose cap	40	2
310I	3A10	69-14-01		Fuel starvation	21	1
		73-25-01		Heater fuel pump relay relocation	16	2
		76-08-02	R2	Wing tip nose cap	40	2
310J	3A10	69-14-01		Fuel starvation	21	1
		76-08-02	R2	Wing tip nose cap	40	2
310J-1	3A10	76-08-02	R2	Wing tip nose cap	40	2
310K	3A10	69-14-01		Fuel starvation	21	1
		76-08-02	R2	Wing tip nose cap	40	2
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		73-01-02		Alternate air system	13	2
		76-08-02	R2	Wing tip nose cap	40	2
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		74-20-01		Main landing gear trunnion	19	2
		75-23-07		Emergency exit window	25	2
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		76-08-02	R2	Wing tip nose cap	40	2
310R	3A10	75-23-07		Emergency exit window	25	2
		76-04-03		ARC PA-500A actuators	39	2
		76-08-02	R2	Wing tip nose cap	40	2
		78-11-05		Autopilot actuator	65	2
		80-13-14		Fuel flow transducer	91	2
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T310P	3A10	69-14-01		Fuel starvation	21	1
		70-03-04		Turbo supercharger turbine housing	23	1
		76-08-02	R2	Wing tip nose cap	40	2
T310Q	3A10	70-03-04		Turbo supercharger turbine housing	23	1
		75-23-07		Emergency exit window	25	2
		76-04-03		ARC PA-500A actuators	39	2
		76-08-02	R2	Wing tip nose cap	40	2
T310R	3A10	75-23-07		Emergency exit window	25	2
		76-04-03		ARC PA-500A actuators	39	2
		76-08-02	R2	Wing tip nose cap	40	2
		78-11-05		Autopilot actuator	65	2
E310J	3A10	69-14-01		Fuel starvation	21	1
		76-08-02	R2	Wing tip nose cap	40	2

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		76-08-02 R2	Wing tip nose cap	40	2
320A	3A25	69-14-01	Fuel starvation	21	1
		76-08-02 R2	Wing tip nose cap	40	2
320B	3A25	69-14-01	Fuel starvation	21	1
		76-08-02 R2	Wing tip nose cap	40	2
320C	3A25	69-14-01	Fuel starvation	21	1
		76-08-02 R2	Wing tip nose cap	40	2
320D	3A25	69-14-01	Fuel starvation	21	1
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		76-08-02 R2	Wing tip nose cap	40	2
320E	3A25	69-14-01	Fuel starvation	21	1
		70-03-04	Turbo supercharger turbine housing	23	1
		76-08-02 R2	Wing tip nose cap	40	2
320F	3A25	69-14-01	Fuel starvation	21	1
		70-03-04	Turbo supercharger turbine housing	23	1
		76-08-02 R2	Wing tip nose cap	40	2
320-1	3A25	69-15-09	Fuel starvation	23	1
		76-08-02 R2	Wing tip nose cap	40	2
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		71-24-04	Flexible hose in engine compartment	4	2
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		78-09-05	Wing spar caps and web doublers	58	2
		78-16-04	Weight and balance data	67	2
		79-10-14	Fuel tank venting	73	2
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		71-17-08	Rear engine stoppage on take off	3	2
		71-24-04	Flexible hose in engine compartment	4	2
		72-23-03	Wing flaps	12	2
		78-09-05	Wing spar caps and web doublers	58	2
337A	A6CE	70-15-02	Fuel quantity indicators	24	1
		71-24-04	Flexible hose in engine compartment	4	2
		78-09-05	Wing spar caps and web doublers	58	2
337B	A6CE	70-15-02	Fuel quantity indicators	24	1
		71-24-04	Flexible hose in engine compartment	4	2
		78-09-05	Wing spar caps and web doublers	58	2
337C	A6CE	70-15-02	Fuel quantity indicators	24	1
		71-24-04	Flexible hose in engine compartment	4	2
		78-09-05	Wing spar caps and web doublers	58	2
337D	A6CE	70-15-02	Fuel quantity indicators	24	1
		78-09-05	Wing spar caps and web doublers	58	2
337E	A6CE	76-04-03	ARC PA-500A actuators	39	2
		78-09-05	Wing spar caps and web doublers	58	2
337F	A6CE	76-04-03	ARC PA-500A actuators	39	2
		78-09-05	Wing spar caps and web doublers	58	2
337G	A6CE	76-04-03	ARC PA-500A actuators	39	2
		77-12-08	External elec. ground power recep	52	2
		78-09-05	Wing spar caps and web doublers	58	2
337H	A6CE	78-09-05	Wing spar caps and web doublers	58	2
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		79-10-14		Fuel tank venting	73	2
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		71-24-04		Flexible hose in engine compartment ...	8	2
		78-09-05		Wing spar caps and web doublers	58	2
T337C	A6CE	70-15-02		Fuel quantity indicators	24	1
		71-24-04		Flexible hose in engine compartment ...	8	2
		78-09-05		Wing spar caps and web doublers	58	2
T337D	A6CE	70-15-02		Fuel quantity indicators	24	1
		78-09-05		Wing spar caps and web doublers	58	2
T337E	A6CE	76-04-03		ARC PA-500A actuators	39	2
		78-09-05		Wing spar caps and web doublers	58	2
T337F	A6CE	76-04-03		ARC PA-500A actuators	39	2
		78-09-05		Wing spar caps and web doublers	58	2
T337G	A6CE	76-04-03		ARC PA-500A actuators	39	2
		77-12-08		External elec. ground power recep	52	2
		78-09-05		Wing spar caps and web doublers	58	2
T337	A6CE	78-09-05		Wing spar caps and web doublers	58	2
P337H	A6CE	78-09-05		Wing spar caps and web doublers	58	2
F337E (Reims)	A23EU	76-04-03		ARC PA-500A actuators	39	2
F337F (Reims)	A23EU	76-04-03		ARC PA-500A actuators	39	2
F337G (Reims)	A23EU	76-04-03		ARC PA-500A actuators	39	2
F337GP (Reims)	A23EU	76-04-03		ARC PA-500A actuators	39	2
340 Series	3A25	72-03-07		Landing gear failure	8	2
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340	3A25	73-22-01		Fuel in wing leading edge	16	2
		74-20-01		Main landing gear trunnion	19	2
		76-04-03		ARC PA-500A actuators	39	2
		76-08-02	R2	Wing tip nose cap	40	2
		78-13-05		Improperly installed seats	66	2
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		81-07-11	R1	Balance weight support structure	96	2
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		78-11-05		Autopilot actuator	65	2
		78-13-05		Improperly installed seats	66	2
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		80-19-10		Deicer systems in adverse weather	93	2
		81-07-11	R1	Balance weight support structure	96	2
		82-26-05		Rudder balance weight rib	103	2
401 Series	A7CE	72-03-07		Landing gear failure	8	2
		72-12-04		Support of fuel lines	11	2
		72-14-08	R1	Flexible fuel hose assemblies	11	2
		75-23-08		Engine exhaust system	26	2
		76-13-07		Fork bolts	41	2
		76-16-07		Engine attachment tangs	47	2
401	A7CE	69-14-01		Fuel starvation	21	1
		70-03-04		Turbo supercharger turbine housing	23	1
		71-07-04		Emergency exit window	1	2
		73-22-01		Fuel in wing leading edge	16	2
		76-08-02	R2	Wing tip nose cap	40	2
		79-10-15		Cracks in wing structure	74	2
401A	A7CE	69-14-01		Fuel starvation	21	1
		70-03-04		Turbo supercharger turbine housing	23	1
		71-07-04		Emergency exit window	1	2
		73-22-01		Fuel in wing leading edge	16	2
		76-08-02	R2	Wing tip nose cap	40	2
		79-10-15		Cracks in wing structure	74	2
401B	A7CE	70-03-04		Turbo supercharger turbine housing	23	1
		71-07-04		Emergency exit window	1	2
		73-22-01		Fuel in wing leading edge	16	2
		76-04-03		ARC PA-500A actuators	39	2
		76-08-02	R2	Wing tip nose cap	40	2
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		76-16-07		Engine attachment tangs	47	2
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		70-03-04		Turbo supercharger turbine housing	23	1
		71-07-04		Emergency exit window	1	2
		73-22-01		Fuel in wing leading edge	16	2
		75-23-08		Engine exhaust system	26	2
		76-08-02	R2	Wing tip nose cap	40	2
		79-10-15		Cracks in wing structure	74	2
402A	A7CE	69-14-01		Fuel starvation	21	1
		70-03-04		Turbo supercharger turbine housing	23	1
		71-07-04		Emergency exit window	1	2
		73-22-01		Fuel in wing leading edge	16	2
		75-23-08		Engine exhaust system	26	2
		76-08-02	R2	Wing tip nose cap	40	2
		79-10-15		Cracks in wing structure	74	2
402B	A7CE	70-03-04		Turbo supercharger turbine housing	23	1
		71-07-04		Emergency exit window	1	2
		73-22-01		Fuel in wing leading edge	16	2
		74-20-01		Main landing gear trunnion	19	2
		75-23-08		Engine exhaust system	26	2
		76-04-03		ABC PA-500A actuators	39	2
		76-08-02	R2	Wing tip nose cap	40	2
		78-06-03		Seat structural assembly	56	2
		78-11-05		Autopilot actuator	65	2
		78-13-05		Improperly installed seats	66	2
		79-10-15		Cracks in wing structure	74	2
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		84-20-02		Nose landing gear	113	2
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		71-07-04		Emergency exit window	1	2
		72-02-01		Propeller attachment nuts	5	2
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		79-10-15		Cracks in wing structure	74	2
411A	A7CE	69-14-01		Fuel starvation	21	1
		71-07-04		Emergency exit window	1	2
		72-02-01		Propeller attachment nuts	5	2
		73-22-01		Fuel in wing leading edge	16	2
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		74-20-01		Main landing gear trunnion	19	2
		75-23-08		Engine exhaust system	26	2
		76-04-03		ABC PA-500A actuators	39	2
		76-08-02	R2	Wing tip nose cap	40	2
		76-16-07		Engine attachment tangs	47	2
		78-11-05		Autopilot actuator	65	2
		78-13-05		Improperly installed seats	66	2
414A	A7CE	78-11-05		Autopilot actuator	65	2
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		78-13-05		Improperly installed seats	66	2
421A	A7CE	69-14-01		Fuel starvation	21	1
		72-02-01		Propeller attachment nuts	5	2
		73-22-01		Fuel in wing leading edge	16	2
		75-23-08		Engine exhaust system	26	2
		76-08-02	R2	Wing tip nose cap	40	2
		78-13-05		Improperly installed seats	66	2
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		74-20-01		Main landing gear trunnion	19	2
		75-23-08		Engine exhaust system	26	2
		76-06-03		ARC PA-500A actuators	39	2
		76-08-02	R2	Wing tip nose cap	40	2
		77-09-02		Windshield inspection and repair	51	2
		78-06-03		Seat structural assembly	56	2
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421C	A7CE	76-07-07		Fuel leakage	40	2
		77-09-02		Windshield inspection and repair	51	2
		78-06-03		Seat structural assembly	56	2
		78-11-05		Autopilot actuator	65	2
		78-13-05		Improperly installed seats	66	2
		80-13-14		Fuel flow transducer	91	2
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551	A27CE	79-12-06		Upper & lower spar cap stems	76	2
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		72-19-05		Horizontal stabilizer support tube	1	2
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		57-13-01	Engine strut fittings	1	1
		59-12-05	Plastic control surface locks	1	1
		59-15-02	Throttle handle rivets	1	1
		59-17-04	Wing spar attaching bolts	3	1
		67-11-01	Fuel pressure gage instrument line	1	2
		72-07-11	Flap pushrod end bearings	2	2
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		74-26-02	Rudder control	5	2
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Colonial C-2	1A13	59-12-05	Plastic control surface locks	1	1
		59-15-02	Throttle handle rivets	1	1
		59-17-04	Wing spar attaching bolts	1	1
		60-22-01	Engine mount	2	1
		67-11-01	Fuel pressure gage instrument line	3	1
		72-07-11	Flap pushrod end bearings	1	2
		74-25-08	Wing rear spar fittings	2	2
		74-26-02	Rudder control	2	2
		79-21-09 R1	Electrical system	5	2
LA-4	1A13	64-17-05	Engine breather tube	2	1
		65-15-03	Nose gear drag strut bolt	2	1
		67-11-01	Fuel pressure gage instrument line	3	1
		72-07-11	Flap pushrod end bearings	1	2
		74-26-02	Rudder control	2	2
		76-02-01	Engine power	3	2
		79-21-09 R1	Electrical system	5	2
LA-4A	1A13	64-17-05	Engine breather tube	2	1
		67-11-01	Fuel pressure gage instrument line	3	1
		72-07-11	Flap pushrod end bearings	1	2
		74-26-02	Rudder control	2	2
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		79-21-09 R1	Electrical system	5	2
LA-4P	1A13	64-17-05	Engine breather tube	2	1
		67-11-01	Fuel pressure gage instrument line	3	1
		72-07-11	Flap pushrod end bearings	1	2
		74-26-02	Rudder control	2	2
		76-02-01	Engine power	3	2
		79-21-09 R1	Electrical system	5	2
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		74-09-06	Fuel restrictor fitting	1	2
		74-26-02	Rudder control	2	2
		76-02-01	Engine power	3	2
		76-12-11	Engine power loss	3	2
		76-24-02	Engine oil coolers	4	2
		78-14-05	Main beam fittings	4	2
		79-06-01	Engine mounts with cracked straps	5	2
		79-21-09 R1	Electrical system	5	2
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		80-21-09 R1	Tail rotor pitch link	1	2
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		53-09-02		Fuselage skin cracks	2	1
		53-10-02		Wing skin cracks	3	1
		53-11-02		Engine oil sump chafing	3	1
		53-12-02		Hydraulic hand pump seals	4	1
		53-21-01		Wing rear spar attachment bolt	4	1
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		54-11-01		Tailplane attachment brackets	5	1
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		67-33-01		Anti-collision light	15	1
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		71-16-01		Fuel cell flapper valves	2	2
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		83-02-02		Structural components	53	2
		84-07-07		Utility seat - forward legs	56	2
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		83-02-02		Structural components	53	2
		84-07-07		Utility seat - forward legs	56	2
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		84-07-07		Utility seat - forward legs	56	2
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		66-05-02		Rudder & elevator trim tab rod end assys	14	1
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		72-12-03		Failure of air bottles	8	2
		72-16-07		Wing main spar pick up fittings	10	2
		75-24-06		Main spar joint	20	2
		75-27-01		Nose and main gear screws	22	2
		76-02-05		Engine mounting frame	23	2
		76-06-04		Engine mounting brackets	23	2
		76-06-10		Nose landing gear casing	24	2
		76-10-03		Drag brace fittings	33	2
		77-14-04		Electrical system	39	2
		77-14-15		Corrosion of engine mount stay strut	40	2
		77-16-04		Wing structure	41	2
		78-09-04		Main spar bottom boom lugs	42	2
		79-02-07		Wing to fuselage attachment	44	2
DeHavilland Series prior to S/N 04503		61-11-04		Wing spar boom corrosion	10	1
DH.114 Heron	A-816	61-23-03		Wing rear spar	10	1
		63-15-02		Bolt attaching flap jack to wing	11	1
		64-19-02		Trim tab rod assembly	13	1
		65-08-01		Main ground assembly	13	1
		66-20-03		Engine fire extinguishing system	14	1
		69-25-07		Aileron lever	19	1
		69-26-02		Engine mount wing straps	20	1
		70-07-06		X-ray tailplane rear spar	22	1
		70-10-07		Nose gear locking lever	22	1
		70-15-08		Wing flap datum hinge links	23	1
		70-21-04		Fin to fuselage attachment	24	1
		70-21-05		Flap datum hinge assemblies	25	1
		71-13-03		Dunlop air bottles	1	2
		71-20-02		Emergency escape hatches	3	2
		72-06-03		Corrosion in engine mount	4	2
		72-06-04		Main undercarriage down lock lever	5	2
		72-07-03		Failure of air bottles	5	2
		72-08-02		Main and damper jack bolts	6	2
		72-08-03		Cracks in rudder control pedal	6	2
		72-09-04		Fuselage keel frame	7	2
		72-12-05		Landing gear jack assemblies	8	2
		72-15-01		Wing to fuselage attach bolts	9	2
		72-20-01		Failure of airplane structure	11	2
		73-13-06		Aileron and rudder trim	15	2
		73-17-03		Flap hinge-to-wing attachments	15	2
		75-16-22		Counterweight bushings	20	2
		75-24-10		Wing structure	21	2
		75-27-03		Nose gear screws	22	2
		76-07-04		Nose landing gear	25	2
		76-16-03		Wing to fuselage attach	36	2
		77-12-03		Engine mount stay struts	38	2
		77-13-14		Drag brace fittings	39	2
		77-14-04		Electrical system	39	2
		77-15-13		Main landing gear damper ram	40	2
		81-21-03		Wing leading edge access doors	51	2
		84-20-04		Eyebolt holes modification	57	2
DORNIER-WERKE G.m.b.H.						
Do 27 Q-6	A8IN	64-14-04		Control flap lever	1	1
		77-14-17	R1	Dornier fuel & oil hose insp.	1	2
Do 28 Series	7A13 & A16EU	77-14-17	R1	Dornier fuel & oil hose insp.	1	2

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		66-30-03		Stabilizer hinge bracket	1	1
Do 28D	A16EU	64-14-03		Electrical installation	1	1
		76-10-08		Elevator trim control	1	2
Do 28D-1	A16EU	64-14-03		Electrical installation	1	1
		69-19-05		Elevator control	2	1
		70-12-10		Elevator trim tab system	2	1
		70-19-03		Jumper wire installation	2	1
		70-21-01		Cabin door structure	2	1
		71-13-05		Cracks in landing gear wheel forks	1	2
		76-10-08		Elevator trim control	1	2
		76-11-04		Electrical cable insulation	1	2
		82-26-04		Autopilot actuators	2	2
Do 28D-2	A16EU	79-13-06		Engine fire system	2	2
EAGLE AIRCRAFT COMPANY						
DW-1	A4HM	82-22-03		Aft elevator push tube	1	2
EAGLE BALLOONS, LTD. (Formerly SENCO BALLOON)						
30-AL	A12ME	73-24-02		Vertical fuel hose coupler	1	2
"Model T"	A1HN	73-24-02		Vertical fuel hose coupler	1	2
		75-11-03		Deflation system	1	2
		80-14-09		Gondola fittings	2	2
TC-4A	A13ME	73-24-02		Vertical fuel hose coupler	1	2
		75-11-03		Deflation system	1	2
		80-14-09		Gondola fittings	2	2
Challenger	A13SO	75-11-03		Deflation system	1	2
		80-14-09		Gondola fittings	2	2
EIRLAVION OY						
PIK-20	G31EU	84-15-07		Rudder bottom hinge bracket	1	2
PIK-20B	G31EU	84-15-07		Rudder bottom hinge bracket	1	2
Pik-20D	G31EU	77-16-08		Wing panels	1	2
		84-15-07		Rudder bottom hinge bracket	1	2
EMBRAER						
(See EMPRESA de AERONAUTICA, S.A.)						
EMIGH AIRCRAFT CORP.						
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Embraer EMB-110P1	A21SO	79-04-03	R2	Landing gear	1	2
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		79-24-05		Wing flap supports	2	2
		81-14-01		Rudder upper hinge support	3	2
		82-05-01	R2	Wing flap actuators	5	2
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		79-10-11		Flight control rods	2	2
		79-24-05		Wing flap supports	2	2
		81-14-01		Rudder upper hinge support	3	2
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ENSTROM HELICOPTER CORPORATION						
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		74-12-01		Forged idler yoke	2	2
		76-17-08		Main rotor shaft	5	2
		77-20-02		Tail rotor spindle	6	2
F-28A	H1CE	72-08-04		Cracks in stabilizer attachment	1	2
		72-11-04		Failure tail rotor drive pins	1	2
		74-12-01		Forged idler yoke	2	2
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		75-22-01		Main rotor system	2	2
		75-22-10		Hub lock washer	3	2
		76-05-11		Tail cone attach bolts	4	2
		76-06-11		Swashplate bearing	4	2
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		77-20-02		Tail rotor spindle	6	2
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F-28C	H1CE	76-06-11		Swashplate bearing	4	2
		77-06-04		Tail rotor assembly	6	2
		77-15-04		Tail rotor pitch link assy	6	2
		77-20-02		Tail rotor spindle	6	2
		77-25-05		Idle mixture	7	2
		79-02-01		Turbochargers	8	2
		79-10-06	R1	Tail rotor blade grips	10	2
		82-16-09		Main rotor blade grips	11	2
		82-24-01		Drivebelt clutch mechanism	11	2
		83-18-04		Tail rotor drive shaft couplings	13	2
F-28F	H1CE	82-16-09		Main rotor blade grips	11	2
		82-24-01		Drivebelt clutch mechanism	11	2
		83-18-04		Tail rotor drive shaft couplings	13	2
280	H1CE	75-22-10		Hub lock washer	3	2
		76-05-11		Tail cone attach bolts	4	2
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		79-10-06	R1	Tail rotor blade grips	10	2
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		75-18-01		Rudder control	1	2
Phoebus B1	G16EU	70-21-03		Chute coupling	1	1
		75-18-01		Rudder control	1	2
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ERCOUPE, INC. (See UNIVAIR AIRCRAFT CORP.)						
FAIRCHILD AIRCRAFT CORPORATION						
SA26-T	A5SW	69-11-01		Cockpit side window	1	1
		77-04-08		Spar brackets	3	2
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		83-15-09		Nose wheel steering systems mod.	11	2
		85-04-01	R1	Hydraulic and oxygen lines insp.	13	2
		85-22-06		Stall avoidance system (SAS)	15	2
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		74-24-02		Horizontal stabilizer spar	1	2
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		77-25-03		Landing gear actuator rod ends	4	2
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		79-25-04		Models incorporating Rosemount servos	5	2
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		81-15-01		Structural wear or damage	7	2
		81-22-04		Elevator return spring	8	2
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		81-26-04		Cable guard & retainer installation	9	2
		82-23-06		MLG door installation	10	2
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		82-23-06		MLG door installation	10	2
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		85-04-01	R1	Hydraulic and oxygen lines insp.	13	2
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		86-10-08		Elevator gust lock system .... BW 86-10		2
SA227-TT	A5SW	82-05-05	R1	Placard on "icing conditions"	9	2
		83-15-09		Nose wheel steering systems mod.	11	2
		84-13-01		Generator control J-box	12	2
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SA227-AC	A8SW	81-22-04		Elevator return spring	8	2
		82-05-05	R1	Placard on "icing conditions"	9	2
		83-12-01		Lower wing skin panel inspection	11	2
		83-15-09		Nose wheel steering systems mod.	11	2
		84-13-01		Generator control J-box	12	2
		85-22-06		Stall avoidance system (SAS)	15	2
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		79-25-04		Models incorporating Rosemount servos	5	2
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		81-02-01		Rudder pedal link attachment	7	2
		81-15-01		Structural wear or damage	7	2
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24R-46	706	47-21-01 47-21-02 47-21-03	Starter relay terminal wire ..... 20-ampere landing light fuse ..... Rudder cable turnbuckles	3 3 3	1 1 1
24R-46S	706	47-21-01 47-21-02 47-21-03	Starter relay terminal wire ..... 20-ampere landing light fuse ..... Rudder cable turnbuckles	3 3 3	1 1 1
24R-46A	706	47-21-03	Rudder cable turnbuckles	3	1
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M-62A-3	724	46-14-02	Cockpit heat control valve	1	1
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FLUG-UND FAHRZEUGBERKE Diamant BEV	G13EU	75-16-19 75-17-09 81-12-51	Rudder jamming ..... Lower harness attachments ..... Rudder close tolerance bolt	1 1 1	2 2 2
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GARCIA, HENRY S. (Formerly SMITH AIRCRAFT) Trojan A-2	A-801	52-11-01	Elevator tube socket	1	1
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		66-13-04		Pressure control static air system	1	1
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		71-16-04		Battery change or modification of comb .	1	2
		72-05-01		Flap actuator rod end	1	2
		74-23-01		External power receptacle	2	2
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		76-18-07		Inverter input power	4	2
		80-07-09		Main cabin entrance door	11	2
		80-19-09	R1	Jet pumps	12	2
		80-26-02		APCS/APC-85 pitch function	19	2
		81-13-07		Change to AFM	20	2
		84-19-06		Tab control system	30	2
24	A10CE	71-16-04		Battery change or modification of comb .	1	2
		72-15-03		Spoiler actuator pivot bolts	2	2
		74-23-01		External power receptacle	2	2
		75-15-06		Landing gear struts	3	2
		76-18-07		Inverter input power	4	2
		77-19-02		Cabin door locking mechanism	4	2
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24B	A10CE	77-19-02		Cabin door locking mechanism	4	2
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560	6A1	57-09-01		Aileron bellcrank casting	1	1
		58-01-01		Fuel vent line replacement	2	1

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		59-04-01	Stabilizer rivets	3	1
		59-16-01	Fuel line routing	5	1
		62-08-02	Fuel line modification	7	1
		65-06-01	Front spar caps	8	1
		73-06-02	Fuel siphoning	2	2
		75-12-09 R2	Inadvertent structural failure	6	2
560-A	6A1	56-02-01	Augmentor tube support clamps	1	1
		57-09-01	Aileron bellcrank casting	1	1
		57-15-01	Landing gear retaining pins	2	1
		58-01-01	Fuel vent line replacement	2	1
		59-04-01	Stabilizer rivets	3	1
		59-16-01	Fuel line routing	5	1
		65-06-01	Front spar caps	8	1
		73-06-02	Fuel siphoning	2	2
		75-12-09 R2	Inadvertent structural failure	6	2
560-E	6A1	57-15-01	Landing gear retaining pins	2	1
		58-01-01	Fuel vent line replacement	2	1
		59-04-01	Stabilizer rivets	3	1
		59-16-01	Fuel line routing	5	1
		65-06-01	Front spar caps	8	1
		67-28-01	Lower front spar cap	10	1
		73-06-02	Fuel siphoning	2	2
		75-12-09 R2	Inadvertent structural failure	6	2
560F	2A4	64-02-01	Main landing gear	8	1
		65-06-01	Front spar caps	8	1
		67-22-01	Main landing gear	10	1
		73-06-02	Fuel siphoning	2	2
		75-12-09 R2	Inadvertent structural failure	6	2
680	2A4	57-09-01	Aileron bellcrank casting	1	1
		57-15-01	Landing gear retaining pins	2	1
		58-01-01	Fuel vent line replacement	2	1
		59-04-01	Stabilizer rivets	3	1
		59-16-01	Fuel line routing	5	1
		65-06-01	Front spar caps	8	1
		67-28-01	Lower front spar cap	10	1
		73-06-02	Fuel siphoning	2	2
		75-12-09 R2	Inadvertent structural failure	6	2
680E	2A4	59-04-01	Stabilizer rivets	3	1
		59-16-01	Fuel line routing	5	1
		60-20-01	Wing rivet replacement	5	1
		65-06-01	Front spar caps	8	1
		67-28-01	Lower front spar cap	10	1
		73-06-02	Fuel siphoning	2	2
		75-12-09 R2	Inadvertent structural failure	6	2
680F, 680F(P)	2A4	62-05-01	Alternate induction air valve	6	1
		62-08-01	Fuel pressure gauge drain line	6	1
		64-02-01	Main landing gear	8	1
		65-06-01	Front spar caps	8	1
		67-22-01	Main landing gear	10	1
		73-06-02	Fuel siphoning	2	2
		75-12-09 R2	Inadvertent structural failure	6	2
680FL, 680FT(P)	2A4	64-02-01	Main landing gear	8	1
		65-06-01	Front spar caps	8	1
		67-22-01	Main landing gear	10	1
		73-06-02	Fuel siphoning	2	2
680T	2A4	84-10-07	Emer. LG extension system mod.	22	2
680V	2A4	84-10-07	Emer. LG extension system mod.	22	2
680W	2A4	84-10-07	Emer. LG extension system mod.	22	2
681	2A4	84-10-07	Emer. LG extension system mod.	22	2
685	2A4	75-19-01	Flap speed	7	2
		82-23-05	Induction air elbow	22	2
690	2A4	73-13-09	Oil supply line failure	3	2
		75-19-01	Flap speed	7	2
		77-03-01	Left & right wing rivets	12	2
		84-19-05	Engine mount systems	22	2
690A	2A4	74-20-12	Pilot and co-pilot side windows	4	2
		75-08-05	Battery disconnect	5	2
		75-08-07	Bleed air line	5	2
		75-19-01	Flap speed	7	2
		77-03-01	Left & right wing rivets	12	2
		77-04-01	Trim system	13	2
		84-19-05	Engine mount systems	22	2

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		84-19-05		Engine mount systems	22	2
690C	2A8	84-19-05		Engine mount systems	22	2
690D	2A8	84-19-05		Engine mount systems	22	2
695	2A8	84-19-05		Engine mount systems	22	2
695A	2A8	84-19-05		Engine mount systems	22	2
720	2A8	59-04-01		Stabilizer rivets	3	1
		59-16-01		Fuel line routing	5	1
		60-20-01		Wing rivet replacement	5	1
		62-08-01		Fuel pressure gauge drain line	6	1
		65-06-01		Front spar caps	8	1
		67-28-01		Lower front spar cap	10	1
		73-06-02		Fuel siphoning	2	2
		75-12-09	R2	Inadvertent structural failure	6	2
HANDLEY PAGE						
(See BRITISH AEROSPACE CORP.)						
HANEKE ROTOR & WING FLIGHT SCHOOL						
Wilbur M. Isenberg						
OH-13E	H2CE	80-21-09	R1	Tail rotor pitch link	1	2
		81-04-03		Tail rotor drive assembly	1	2
		85-15-04		Tail rotor blade yolk P/N 74-641-057-9	2	2
		86-06-08		Main rotor blade grips ..... Cor. BW 86-07		2
HAWKER SIDDELEY AVIATION						
(See DEHAVILLAND)						
HAWKINS AND POWERS AVIATION						
UH-1B	H1RM	80-17-09		Main rotor straps	1	2
		83-03-03		Tail boom skin joint	1	2
		83-20-01		Tail rotor hub assembly	2	2
		84-18-03	R1	Clevis inspection	3	2
		86-07-07		Universal assembly - main rotor ..... BW 86-07		2
HELIC AIRCRAFT LIMITED						
H250	1A8	82-16-08		L and R main spar carry-thru assy	1	2
H295 (U-10D)	1A8	82-16-08		L and R main spar carry-thru assy	1	2
HT-295	1A8	82-16-08		L and R main spar carry-thru assy	1	2
H-391 (YL-24)	1A8	82-16-08		L and R main spar carry-thru assy	1	2
H-391B	1A8	56-22-02		Wing attachment washers	1	1
		57-25-02		Fin spar inspection	1	1
		58-01-04		Aileron bellcrank inspection	1	1
		58-25-04		Fin hinge attachment	1	1
		59-17-05		Horizontal tail spar fitting	2	1
		59-17-06		Pulley guards	2	1
		63-18-02		Engine breather	2	1
		82-16-08		L and R main spar carry-thru assy	1	2
H-395 (L-28A)	1A8	58-25-04		Fin hinge attachment	1	1
		59-17-05		Horizontal tail spar fitting	2	1
		59-17-06		Pulley guards	2	1
		63-18-02		Engine breather	2	1
		82-16-08		L and R main spar carry-thru assy	1	2
H-395A	1A8	59-17-06		Pulley guards	2	1
		63-18-02		Engine breather	2	1
		82-16-08		L and R main spar carry-thru assy	1	2
HILLER AVIATION						
UH-12 Series	6H1	56-09-01		Tail rotor torsion bar	4	1
		58-02-03		Carburetor mixture control removal	5	1
		81-17-03		Main transmission	17	2
		81-18-02		Tail rotor skin cracks	18	2
UH-12	6H1	51-20-03		Collective pitch ballast system bracket.	1	1
		52-01-08		Collective pitch incidence arms	1	1
		52-29-01		Tail rotor drive slip joint assy inspec.	1	1
		53-09-03		Outboard tension bar pins	2	1

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		53-12-01	Horizontal stabilizer spar	2	1
		53-24-02	Tail rotor pitch change rod	3	1
		55-19-01	Tail boom rear bulkhead	3	1
		56-27-02	Engine mount welds	4	1
		59-05-05	Cyclic control scissor casting	5	1
		59-25-03	Wobble plate screws	5	1
		63-04-02	Tail rotor blade	8	1
		71-25-08	Inspect main rotor blades	2	2
		73-20-03	Main rotor hub	3	2
		77-07-05	Control rotor bld spar tube	6	2
UH-12A (HTE-1, H-23A)	6H1	51-20-03	Collective pitch ballast system bracket.	1	1
		52-01-08	Collective pitch incidence arms	1	1
		52-29-01	Tail rotor drive slip joint assy inspec.	1	1
		53-09-03	Outboard tension bar pins	2	1
		53-12-01	Horizontal stabilizer spar	2	1
		53-24-02	Tail rotor pitch change rod	3	1
		55-19-01	Tail boom rear bulkhead	3	1
		56-27-02	Engine mount welds	4	1
		59-05-05	Cyclic control scissor casting	5	1
		59-25-03	Wobble plate screws	5	1
		62-03-01	Cam follower assembly	7	1
		63-04-02	Tail rotor blade	8	1
		73-20-03	Main rotor hub	3	2
		77-07-05	Control rotor bld spar tube	6	2
UH-12B (HTE-2, H-23B, H-23C)	6H2	52-01-08	Collective pitch incidence arms	1	1
		52-29-01	Tail rotor drive slip joint assy inspec.	1	1
		53-09-03	Outboard tension bar pins	2	1
		53-12-01	Horizontal stabilizer spar	2	1
		53-24-02	Tail rotor pitch change rod	3	1
		55-19-01	Tail boom rear bulkhead	3	1
		56-27-02	Engine mount welds	4	1
		59-05-05	Cyclic control scissor casting	5	1
		59-25-03	Wobble plate screws	5	1
		62-03-01	Cam follower assembly	7	1
		63-04-02	Tail rotor blade	8	1
		73-20-03	Main rotor hub	3	2
		77-07-05	Control rotor bld spar tube	6	2
UH-12C	6H2	59-05-05	Cyclic control scissor casting	5	1
		59-25-03	Wobble plate screws	5	1
		63-04-02	Tail rotor blade	8	1
		73-20-03	Main rotor hub	3	2
		77-07-05	Control rotor bld spar tube	6	2
		77-24-03	Fuel control valve	8	2
UH-12D (UH-23D)	4H10	59-05-05	Cyclic control scissor casting	5	1
		59-25-03	Wobble plate screws	5	1
		61-05-04	Main transmission	6	1
		62-06-03	Transmission & lubrication system mod .	8	1
		63-21-03	Main rotor blades	8	1
		66-22-04	Mercury clutches	10	1
		67-08-03	Cyclic control bracket	11	1
		69-08-08	Tail rotor yoke	12	1
		69-13-07	Collective yoke support brackets	13	1
		73-20-03	Main rotor hub	3	2
		73-25-03	Finite life components	4	2
		74-04-03	Main rotor drag struts	4	2
		75-10-01	Rotor drive system	5	2
		76-20-06	Cable freezing control	6	2
		77-07-05	Control rotor bld spar tube	6	2
		77-24-03	Fuel control valve	8	2
		78-18-03	Drive shaft	8	2
		78-22-02	Rotor blade retention system	8	2
		78-22-08	Flight/engine control	9	2
		78-23-07	Finite life components listed in AD	10	2
		79-03-07	Main rotor tach generator	11	2
		79-18-04	Main rotor blade fork	12	2
		80-07-04	Main rotor blade anti-node bars	13	2
		80-14-12	Main rotor blades	14	2
		80-19-02	Turbine power - Soloy conversions (See Soloy Conversions, Equipment)	14	2
		80-23-02			
		81-04-01	Rudder cable assembly	15	2
		81-09-08	Main rotor blade	15	2
		82-15-02	Main and tail rotors	19	2
		83-25-02	Main rotor blade doublers	20	2
		84-19-08	Engine mount	21	2
UH-12E, UH-12E-L (UH-23G, H-23F)	4H11	59-05-05	Cyclic control scissor casting	5	1
		59-25-03	Wobble plate screws	5	1
		61-05-04	Main transmission	6	1
		62-06-03	Transmission & lubrication system mod .	8	1
		63-21-03	Main rotor blades	8	1
		64-11-02	Tail rotor pinion gears	10	1

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		67-08-03		Cyclic control bracket	11	1
		69-08-08		Tail rotor yoke	12	1
		69-13-07		Collective yoke support brackets	13	1
		72-13-08		Main rotor blades	3	2
		73-20-03		Main rotor hub	3	2
		74-04-03		Main rotor drag struts	4	2
		75-10-01		Rotor drive system	5	2
		76-20-06		Cable freezing control	6	2
		77-07-05		Control rotor bld spar tube	6	2
		77-24-03		Fuel control valve	8	2
		78-18-03		Drive shaft	8	2
		78-22-02		Rotor blade retention system	8	2
		78-22-08		Flight/engine control	9	2
		78-23-07		Finite life components listed in AD	10	2
		79-03-07		Main rotor tach generator	11	2
		79-18-08		Main rotor blade fork	12	2
		80-07-04		Main rotor blade anti-node bars	13	2
		80-14-12		Main rotor blades	14	2
		80-19-02		Turbine power - Soloy conversions	14	2
		80-23-02		(See Soloy Conversions, Equipment)		
		81-04-01		Rudder cable assembly	15	2
		81-09-08		Main rotor blade	15	2
		82-13-04	R1	Torsional couplings	18	2
		82-15-02		Main and tail rotors	19	2
		82-16-07		Torsional coupling assys	20	2
		83-25-02		Main rotor blade doublers	20	2
		84-19-08		Engine mount	21	2
UH-12L, UH-12L4	H1WE	59-05-05		Cyclic control scissor casting	5	1
		66-22-04		Mercury clutches	10	1
		69-08-08		Tail rotor yoke	12	1
		69-13-07		Collective yoke support brackets	13	1
		72-13-08		Main rotor blades	3	2
		75-10-01		Rotor drive system	5	2
		77-24-03		Fuel control valve	8	2
		81-04-01		Rudder cable assembly	15	2
		82-13-04	R1	Torsional couplings	18	2
		82-15-02		Main and tail rotors	19	2
		82-16-07		Torsional coupling assys	20	2
FH-1100, 1100 (OH-5A)	H2WE	66-30-05		Main engine drive shaft	10	1
		68-02-04		Cyclic input swashplate ring	11	1
		68-06-05		Failure of coupling shaft	12	1
		68-08-09		Coupling shaft	12	1
		70-18-04		Transmission vertical status	13	1
		71-11-03		VNE placard	1	2
		71-22-03		Tail rotor bearing block	1	2
		71-24-02		Failure of transmission mount strut	1	2
		71-24-06		Attach lug engine mount strut	2	2
		71-24-08		Landing gear torque tube	2	2
		72-13-07		Drive shaft assemblies	3	2
		75-03-04		Tail fin spar	5	2
		77-07-08		Tail rotor tension torsion bars	7	2
		79-11-04		Lower housing transmissions	11	2
		81-10-02		Support column	16	2
HUGHES HELICOPTERS, INC.						
269 Series (TH-55A)	4H12	67-21-01		Air scoop	4	1
		68-21-05		Main rotor thrust bearing	4	1
		69-21-01		Failure of input pinion shaft	6	1
		70-17-03		Flapping hinge bolts	9	1
		75-08-12		Actuator and cover	5	2
		76-10-02		Lateral control	10	2
		76-18-01		Tail boom support strut	11	2
		77-07-01		Clutch actuator	13	2
		78-02-02		Tail rotor control pedals	17	2
		80-05-05		Tail boom center support	25	2
		81-17-04		Drive shaft assemblies	31	2
		82-15-03		Rotor system	34	2
269A	4H12	62-11-04		Operating limitations	1	1
		62-14-03		Tail rotor blade	1	1
		62-21-03		Modification	1	1
		64-06-04		Lower coupling drive shaft	1	1
		64-28-02		Main rotor blade flapping hinge bearing.	2	1
		66-03-02		Tail position lights	3	1
		67-11-03		Main rotor gear drive	3	1
		68-26-01		Lower coupling drive shaft	5	1
		69-04-03		Rotor blade	6	1
		70-01-06		Lateral pitch idler bell crank	7	1
		70-08-01		Flapping hinge bolts	7	1
		71-20-05		Idler pulley bearings	1	2
		74-21-04		Canopy slats	4	2
		75-15-02		Throttle and engine power control	6	2

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		78-25-04	Pinion assemblies	19	2
		78-26-04	Tail rotor hub assembly	20	2
		79-23-03 R1	Tail rotor blades ... Rev. BW 86-09		2
		80-02-14	Lower pulley bearings	24	2
		80-18-07	Main transmission assembly	26	2
		82-15-01 R1	Main transmission	33	2
269A-1	4H12	62-21-03	Modification	1	1
		64-06-04	Lower coupling drive shaft	1	1
		64-28-02	Main rotor blade flapping hinge bearing.	2	1
		66-03-02	Tail position lights	3	1
		67-11-03	Main rotor gear drive	3	1
		68-26-01	Lower coupling drive shaft	5	1
		69-04-03	Rotor blade	6	1
		70-01-06	Lateral pitch idler bell crank	7	1
		70-08-01	Flapping hinge bolts	7	1
		71-20-05	Idler pulley bearings	1	2
		74-21-04	Canopy slats	4	2
		75-15-02	Throttle and engine power control	6	2
		77-23-08	Cracks in main rotor blades	16	2
		78-25-04	Pinion assemblies	19	2
		78-26-04	Tail rotor hub assembly	20	2
		79-23-03 R1	Tail rotor blades ... Rev. BW 86-09		2
		80-02-14	Lower pulley bearings	24	2
		80-18-07	Main transmission assembly	26	2
		82-15-01 R1	Main transmission	33	2
269A-2	4H12	64-28-02	Main rotor blade flapping hinge bearing.	2	1
		67-11-03	Main rotor gear drive	3	1
		68-26-01	Lower coupling drive shaft	5	1
		69-04-03	Rotor blade	6	1
		70-01-06	Lateral pitch idler bell crank	7	1
		70-08-01	Flapping hinge bolts	7	1
		77-23-08	Cracks in main rotor blades	16	2
269B	4H12	64-06-04	Lower coupling drive shaft	1	1
		64-28-02	Main rotor blade flapping hinge bearing.	2	1
		66-03-02	Tail position lights	3	1
		67-11-03	Main rotor gear drive	3	1
		68-26-01	Lower coupling drive shaft	5	1
		69-04-03	Rotor blade	6	1
		70-01-06	Lateral pitch idler bell crank	7	1
		70-08-01	Flapping hinge bolts	7	1
		71-20-05	Idler pulley bearings	1	2
		74-21-04	Canopy slats	4	2
		75-15-02	Throttle and engine power control	6	2
		77-23-08	Cracks in main rotor blades	16	2
		78-25-04	Pinion assemblies	19	2
		78-26-04	Tail rotor hub assembly	20	2
		79-23-03 R1	Tail rotor blades ... Rev. BW 86-09		2
		80-02-14	Lower pulley bearings	24	2
		80-18-07	Main transmission assembly	26	2
		82-15-01 R1	Main transmission	33	2
269C	4H12	73-11-01	Idler pulley bearing failure	2	2
		74-21-04	Canopy slats	4	2
		78-25-04	Pinion assemblies	19	2
		78-26-04	Tail rotor hub assembly	20	2
		79-23-03 R1	Tail rotor blades ... Rev. BW 86-09		2
		80-02-14	Lower pulley bearings	24	2
		80-18-07	Main transmission assembly	26	2
		82-15-01 R1	Main transmission	33	2
369 Series	3H2E	70-16-07	Main rotor blade	8	1
		80-08-04	(See Chadwick, Equipment)		
		80-24-04	Placard - front seat occupancy	27	2
		80-25-01	Tail rotor drive shaft	28	2
		81-07-10 R1	Overrunning clutch assembly	28	2
		82-01-08	Lever control rod	33	2
		84-01-02 R1	Rotor system control	35	2
		86-01-04	Tail rotor blades ... BW 86-01		2
369 (YOH-6A)	3H2E	74-20-04	Main rotor blade	3	2
		75-10-04	Tail rotor blades	6	2
		75-22-03	Tail rotor drive shaft	9	2
		75-22-04	Tail rotor blades	9	2
		77-21-04	Clutch and shaft assembly	16	2
		82-18-01	With Chadwick C-20 aux. fuel system	33	2
		86-01-04	Tail rotor blades ... BW 86-01		2
369A (OH-6A)	3H2E	72-16-09	Tail rotor input gear shaft assys	1	2
		74-07-02	Aluminum tail rotor blades	3	2
		74-20-04	Main rotor blade	3	2
		75-10-04	Tail rotor blades	6	2
		75-22-03	Tail rotor drive shaft	9	2

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		77-21-04		Clutch and shaft assembly	16	2
		85-18-02		Tail rotor blade inspection	37	2
		86-01-04		Tail rotor blades ... BW 86-01		2
369D	H3WE	77-05-03		Tail rotor control system	12	2
		77-15-09	R1	Main rotor retention straps	14	2
		77-19-03		Main rotor retention straps	14	2
		77-19-04		Main rotor retention straps	15	2
		77-21-04		Clutch and shaft assembly	16	2
		78-20-03		Fire suppresion system	18	2
		78-26-04		Tail rotor hub assembly	20	2
		79-10-09		Tail rotor pitch control assy	21	2
		79-18-11	R1	Main rotor blade attachment lugs	22	2
		81-10-08		Rotor retention system	29	2
		81-17-02	R1	Tail rotor drive shaft	30	2
		81-26-01		Main rotor drive shaft	32	2
		82-17-01		Output gearshaft assembly	34	2
		84-11-01		Control rod	36	2
		84-12-01	R1	Approved rotor blades	36	2
		85-18-02		Tail rotor blade inspection	37	2
369E	H3WE	84-11-01		Control rod	36	2
		84-12-01	R1	Approved rotor blades	36	2
		85-18-02		Tail rotor blade inspection	37	2
369H Series	H3WE	69-21-01		Failure of input pinion shaft	6	1
		72-18-04		VNE limitations	2	2
		75-09-17		Protection of passengers	6	2
		77-09-01		Emergency float assemblies	13	2
369H	H3WE	72-16-09		Tail rotor input gear shaft assys	1	2
		74-07-02		Aluminum tail rotor blades	3	2
		74-20-04		Main rotor blade	3	2
		75-10-04		Tail rotor blades	6	2
		75-22-03		Tail rotor drive shaft	9	2
		75-22-04		Tail rotor blades	9	2
		76-19-03		Damper plunger	12	2
		77-21-04		Clutch and shaft assembly	16	2
		78-20-03		Fire suppresion system	18	2
		78-26-04		Tail rotor hub assembly	20	2
		85-18-02		Tail rotor blade inspection	37	2
369HM	H3WE	72-18-04		VNE limitations	2	2
		74-07-02		Aluminum tail rotor blades	3	2
		74-20-04		Main rotor blade	3	2
		75-06-02		Cargo carriers	4	2
		75-10-04		Tail rotor blades	6	2
		75-22-03		Tail rotor drive shaft	9	2
		75-22-04		Tail rotor blades	9	2
		76-19-03		Damper plunger	12	2
		77-21-04		Clutch and shaft assembly	16	2
		78-26-04		Tail rotor hub assembly	20	2
		85-18-02		Tail rotor blade inspection	37	2
369HS	H3WE	72-18-04		VNE limitations	2	2
		74-07-02		Aluminum tail rotor blades	3	2
		74-20-04		Main rotor blade	3	2
		75-06-02		Cargo carriers	4	2
		75-10-04		Tail rotor blades	6	2
		75-22-03		Tail rotor drive shaft	9	2
		75-22-04		Tail rotor blades	9	2
		76-19-03		Damper plunger	12	2
		77-21-04		Clutch and shaft assembly	16	2
		78-26-04		Tail rotor hub assembly	20	2
		85-18-02		Tail rotor blade inspection	37	2
369HE	H3WE	72-18-04		VNE limitations	2	2
		74-07-02		Aluminum tail rotor blades	3	2
		74-20-04		Main rotor blade	3	2
		75-06-02		Cargo carriers	4	2
		75-10-04		Tail rotor blades	6	2
		75-22-03		Tail rotor drive shaft	9	2
		75-22-04		Tail rotor blades	9	2
		76-19-03		Damper plunger	12	2
		77-21-04		Clutch and shaft assembly	16	2
		78-26-04		Tail rotor hub assembly	20	2
		85-18-02		Tail rotor blade inspection	37	2
HINES, MICHAEL E. (Formerly BRANTLY HELICOPTER)						
B-2	2H2	60-06-03		Tail rotor guard	1	1
		60-07-02		Tail rotor drive shaft	1	1
		60-10-02		Rotor blade inspection	1	1
		60-26-03		Drive shaft coupling	2	1

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		61-04-01		Clutch bolts	2	1
		61-11-01		Landing gear drag brace	3	1
		61-11-02		Oil system modification	3	1
		61-16-03		Seat modification	3	1
		61-16-04		Transmission mount lug	3	1
		61-18-02		Tail rotor modification	4	1
		61-23-01		Rotor blade bond separation	5	1
		62-05-02		Fuel pump seals	5	1
		62-06-01		Seat back adjustment	6	1
		65-28-01		Tail rotor blades	6	1
		67-09-02		Main rotor mast	6	1
		68-04-04	R2	Tail rotor blade	7	1
		68-05-02		Tail rotor drive shaft	1	2
		71-17-05		Main rotor mast	7	1
		72-21-02		Pylon bearing shaft	2	2
B-2A	2H2	60-06-03		Tail rotor guard	3	2
		60-10-02		Rotor blade inspection	1	1
		60-26-03		Drive shaft coupling	1	1
		61-04-01		Clutch bolts	2	1
		61-11-01		Landing gear drag brace	2	1
		61-11-02		Oil system modification	3	1
		61-16-03		Seat modification	3	1
		61-18-02		Tail rotor modification	3	1
		61-23-01		Rotor blade bond separation	5	1
		62-05-02		Fuel pump seals	5	1
		62-06-01		Seat back adjustment	6	1
		65-28-01		Tail rotor blades	6	1
		67-09-02		Main rotor mast	6	1
		68-04-04	R2	Tail rotor blade	7	1
		68-05-02		Tail rotor drive shaft	1	2
		71-17-05		Main rotor mast	7	1
		72-21-02		Pylon bearing shaft	2	2
B-2B	2H2	60-06-03		Tail rotor guard	3	2
		60-10-02		Rotor blade inspection	1	1
		60-26-03		Drive shaft coupling	1	1
		61-04-01		Clutch bolts	2	1
		61-11-01		Landing gear drag brace	2	1
		61-11-02		Oil system modification	3	1
		61-16-03		Seat modification	3	1
		61-18-02		Tail rotor modification	3	1
		61-23-01		Rotor blade bond separation	5	1
		62-05-02		Fuel pump seals	5	1
		62-06-01		Seat back adjustment	6	1
		65-28-01		Tail rotor blades	6	1
		67-09-02		Main rotor mast	6	1
		68-04-04	R2	Tail rotor blade	7	1
		68-05-02		Tail rotor drive shaft	1	2
		71-17-05		Main rotor mast	7	1
		72-21-02		Pylon bearing shaft	2	2
305	H38W	68-05-02		Tail rotor drive shaft	3	2
		76-08-06		Main rotor hub clevis bearing	7	1
					3	2

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	7A4	62-16-04		Frame angle bar	1	1
		63-15-05		Steel control guides	1	1
		63-15-06		Elevator trim tab levers	1	1
		63-22-04		Main landing gear shock absorber	2	1
		64-03-04		Nose landing gear steering control unit	2	1

INTERCEPTOR CORP.
(See PROP JETS, INC.)
(Formerly MEYERS, AERO COMMANDER, ROCKWELL INTERNATIONAL)

INTERMOUNTAIN
(See S.L. INDUSTRIES, AIRCRAFT PARTS & DEVELOPMENT CORP.)

INTERNATIONAL HELICOPTER

UH-1B	H50	80-17-09		Main rotor straps	1	2
		83-03-03		Tail rotor drive assembly	1	2
		83-20-01		Tail rotor hub assembly	2	2
		84-18-03		Clevis inspection	3	2
		86-07-07		Universal assembly - main rotor	BW 86-07	2

KAISER FLEETWINGS, INC.

F5	ATC680	49-32-01		Engine support struts	1	1
F-401	2-540	49-32-01		Engine support struts	1	1

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KAMAN AIRCRAFT CORP.						
K-240	1H3	59-10-06		Wood check plate rotor blades	1	1
KHAD COMPANY						
(Formerly PINE AIR)						
Super V	A5IN	76-05-04		Stabilizer attach fitting	1	2
LAKE AIRCRAFT CORP.						
(See CONSOLIDATED AERONAUTICS)						
LEAR JET INDUSTRIES, INC.						
(See GATES LEARJET CORP.)						
LENAIR CORPORATION						
UH-1L	H4NM	80-17-09		Main rotor straps	1	2
TH-1L		83-03-03		Tail boom skin joint	1	2
		84-18-03		Clevis inspection	2	2
LET, N.P.						
Blanik 13	G24EU	77-15-05		Fin top ribs	1	2
		78-23-14	R1	Tow release system	2	2
		80-16-03		Horizontal stabilizer	2	2
LUSCOMBE AIRCRAFT CORP. (LARSEN)						
(See TEMCO for Model 11 Series)						
8 Series	694	47-10-40		Rudder control arm reinforcement	1	1
		47-22-01		Bulkhead reinforcement for seaplanes ..	1	1
		48-09-03		Kollsman airspeed baffle	1	1
		48-49-01		Vertical stabilizer spar fitting	1	1
		49-43-02		Stabilizer spar inspection	2	1
		51-10-02		Control cable inspection	3	1
		55-24-01		Corrosion inspection	3	1
		61-03-05		Fuel line interference	4	1
		79-25-05		Stabilizer forward attach fitting	1	2
8A	694	46-30-01		Control stick horn adjustment screw ...	1	1
8C	694	50-37-01		Fuel system modifications	2	1
8E	694	62-24-03		Cabin heat system	4	1
8F	694	62-24-03		Cabin heat system	4	1
T-8F	694	62-24-03		Cabin heat system	4	1
MAULE AEROSPACE TECHNOLOGY						
M4 Series	3A23	79-12-01		Tail-to-fuselage attach tube	3	2
		81-14-02		Rudder pedal V-bar	3	2
		84-09-07		Plug type drain fittings repl.	4	2
Be Dee M-4	3A23	65-18-01		Upper fuselage fabric	1	1
M-4	3A23	65-18-01		Upper fuselage fabric	1	1
		68-07-08		Rudder trim tab control	1	1
		69-20-02		Aileron control system pulley	1	1
M-4C	3A23	68-07-08		Rudder trim tab control	1	1
		69-20-02		Aileron control system pulley	1	1
M-4S	3A23	68-07-08		Rudder trim tab control	1	1
		69-20-02		Aileron control system pulley	1	1
M-4T	3A23	68-07-08		Rudder trim tab control	1	1
		69-20-02		Aileron control system pulley	1	1
M-4-210	3A23	65-18-01		Upper fuselage fabric	1	1
		65-28-04		Fuel system modifications	1	1
		68-07-08		Rudder trim tab control	1	1
		69-20-02		Aileron control system pulley	1	1
		75-11-02		Fuel lines	2	2
M-4-210C	3A23	68-07-08		Rudder trim tab control	1	1
		69-20-02		Aileron control system pulley	1	1
		75-11-02		Fuel lines	2	2
M-4-220	3A23	71-17-01		Fuel line blockage	1	2
		73-11-06		Engine overheat	2	2

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M-6-220B	7A23	68-07-08	Rudder trim tab control	1	1
M-6-220C	3A23	68-07-08	Rudder trim tab control	1	1
		69-20-02	Aileron control system pulley	1	1
		71-06-06	Seat track and guide	1	2
M-6-180	3A23	71-17-01	Fuel line blockage	1	2
		73-11-06	Engine overheat	2	2
M-6-180C	3A23	71-06-06	Seat track and guide	1	2
M-5 Series	3A23	79-12-01	Tail-to-fuselage attach tube	3	2
		81-18-02	Rudder pedal V-bar	3	2
		88-09-07	Plug type drain fittings repl.	4	2
M-5-210C	3A23	75-11-02	Fuel lines	2	2
		78-13-08	Engine fuel supply	2	2
M-5-235C	3A23	78-13-08	Engine fuel supply	2	2
		82-03-05	Engine stoppage prevention	4	2
M-6-235C	3A23	82-03-05	Engine stoppage prevention	4	2
McCLISH THOMAS H.					
E, E75L, D(SC	A-715	75-12-05	Support struts and longerons	1	2
McCULLOCH					
(See AERO RESOURCES, INC.)					
McKINNON ENTERPRISES, INC.					
G21 Series	4A24	73-07-0*	Elevator or rudder torque tube assys	1	2
MESSERSCHMITT - BOLKOW - BLOHM - GMBH					
(See Bolkow)					
BO-105 Series	H3EU	75-14-01	Hose assemblies	1	2
		75-14-02	Rotor hub quadruple nuts	2	2
		77-11-02	Main rotor	4	2
		78-19-03	Safety belts	8	2
		79-24-06	Tail rotor blades	9	2
		80-10-02	Tail rotor system	10	2
		80-16-01 R1	Engine cowling assemblies	11	2
		81-03-01	Drive shafts	12	2
		86-16-01 L	Tail rotor blade inspection	13	2
		85-08-01	Vertical fin spar and skins	14	2
		85-26-02	Hydraulic actuator ..... BW 86-03		2
BO-105A	H3EU	75-17-13	Tail rotor blade tip cap	2	2
		75-17-27	Main rotor head assembly	3	2
		76-18-09	Main rotor actuator	4	2
		76-18-10	Engine mount assembly	4	2
		76-26-05	Rotor brake	5	2
		77-04-06	Main rotor gearbox	6	2
		77-08-07	External load release	6	2
		77-15-01	Tail rotor drive system	7	2
		77-16-07	Main rotor gearbox	7	2
		77-21-07	Wiring	8	2
BO-105C	H3EU	75-17-13	Tail rotor blade tip cap	2	2
		75-17-27	Main rotor head assembly	3	2
		76-18-09	Main rotor actuator	4	2
		76-18-10	Engine mount assembly	4	2
		76-26-05	Rotor brake	5	2
		77-04-06	Main rotor gearbox	6	2
		77-08-07	External load release	6	2
		77-15-01	Tail rotor drive system	7	2
		77-16-07	Main rotor gearbox	7	2
		77-21-07	Wiring	8	2
BO-209 Series	A27EU	75-21-02	Fuselage	3	2
		76-04-08	Engine mount	3	2
BR 117A-1	H13EU	85-02-04	Add P/N 117-740131.90 to placard	14	2
BR 117A-3	H13EU	86-09-03	Tail rotor blade ..... BW 86-09		2
MEYERS AIRCRAFT COMPANY					
(See PROP JETS, INC.)					

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MITSUBISHI AIRCRAFT INTERNATIONAL AND MITSUBISHI HEAVY INDUSTRIES LTD.						
MU-2B	A 2C	73-19-03		Nose gear actuating system failure	1	2
		74-11-01		Windshield outer panes	2	2
		74-11-02		Flap flexible shaft	2	2
		75-16-20		Propeller pitch control lever	5	2
		78-03-05		Cowling latches	6	2
		80-15-03		Rear baggage compartment	8	2
		81-06-01	R1	Engine aft nacelles	9	2
		82-08-02		Electrical wiring inspection	11	2
		82-21-03		Fire detection	12	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B Series	A2PC	79-24-02		Outer fuel tank wiring	7	2
MU-2B-10	A2PC	71-14-01		Fuel tank fungus coating peeling	1	2
		73-19-03		Nose gear actuating system failure	1	2
		74-11-01		Windshield outer panes	2	2
		74-11-02		Flap flexible shaft	2	2
		75-16-20		Propeller pitch control lever	5	2
		78-03-05		Cowling latches	6	2
		80-15-03		Rear baggage compartment	8	2
		80-18-12	R1	NLG strut assembly	8	2
		81-06-01	R1	Engine aft nacelles	9	2
		82-08-02		Electrical wiring inspection	11	2
		82-21-03		Fire detection	12	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-15	A2PC	71-14-01		Fuel tank fungus coating peeling	1	2
		73-19-03		Nose gear actuating system failure	1	2
		74-11-01		Windshield outer panes	2	2
		74-11-02		Flap flexible shaft	2	2
		75-16-20		Propeller pitch control lever	5	2
		78-03-05		Cowling latches	6	2
		80-15-03		Rear baggage compartment	8	2
		80-18-12	R1	NLG strut assembly	8	2
		81-06-01	R1	Engine aft nacelles	9	2
		82-08-02		Electrical wiring inspection	11	2
		82-21-03		Fire detection	12	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-20	A2PC	71-14-01		Fuel tank fungus coating peeling	1	2
		73-19-03		Nose gear actuating system failure	1	2
		74-11-01		Windshield outer panes	2	2
		74-11-02		Flap flexible shaft	2	2
		75-16-13		Main wing flap	5	2
		75-16-20		Propeller pitch control lever	5	2
		78-03-05		Cowling latches	6	2
		80-15-03		Rear baggage compartment	8	2
		80-18-12	R1	NLG strut assembly	8	2
		81-06-01	R1	Engine aft nacelles	9	2
		82-08-02		Electrical wiring inspection	11	2
		82-21-03		Fire detection	12	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-25	A2PC, A10SW	73-19-03		Nose gear actuating system failure	1	2
		74-11-01		Windshield outer panes	2	2
		74-11-02		Flap flexible shaft	2	2
		75-16-13		Main wing flap	5	2
		75-16-20		Propeller pitch control lever	5	2
		78-03-05		Cowling latches	6	2
		80-15-03		Rear baggage compartment	8	2
		80-18-12	R1	NLG strut assembly	8	2
		81-06-01	R1	Engine aft nacelles	9	2
		81-25-04	R1	Electrical wiring inspection	10	2
		82-08-02		Electrical wiring inspection	11	2
		82-21-03		Fire detection	12	2
		83-09-02		Strobe light assemblies	13	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-26	A2PC, A10SW	75-02-01		Flap flexible shaft inner cable	3	2
		75-03-06		Cracks and optical distortion	4	2
		75-16-20		Propeller pitch control lever	5	2
		78-03-05		Cowling latches	6	2
		80-18-12	R1	NLG strut assembly	8	2
		81-06-01	R1	Engine aft nacelles	9	2

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		82-08-02		Electrical wiring inspection	11	2
		83-09-02		Strobe light assemblies	13	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-26A	A10SW	81-25-04	R1	Electrical wiring inspection	10	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-30	A2PC	71-16-01		Fuel tank fungus coating peeling	1	2
		74-11-01		Windshield outer panes	2	2
		74-11-02		Flap flexible shaft	2	2
		75-16-13		Main wing flap	5	2
		75-16-20		Propeller pitch control lever	5	2
		76-22-04		Main landing gear	6	2
		78-03-05		Cowling latches	6	2
		80-18-12	R1	NLG strut assembly	8	2
		82-08-02		Electrical wiring inspection	11	2
		82-21-03		Fire detection	12	2
		83-09-02		Strobe light assemblies	13	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-35	A2PC, A10SW	74-11-01		Windshield outer panes	2	2
		74-11-02		Flap flexible shaft	2	2
		75-16-13		Main wing flap	5	2
		75-16-20		Propeller pitch control lever	5	2
		76-22-04		Main landing gear	6	2
		78-03-05		Cowling latches	6	2
		80-18-12	R1	NLG strut assembly	8	2
		81-25-04	R1	Electrical wiring inspection	10	2
		82-08-02		Electrical wiring inspection	11	2
		83-09-02		Strobe light assemblies	13	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-36	A2PC, A10SW	75-02-01		Flap flexible shaft inner cable	3	2
		75-03-06		Cracks and optical distortion	4	2
		75-16-20		Propeller pitch control lever	5	2
		78-03-05		Cowling latches	6	2
		80-04-01		Avionic equipment mounting shelf	7	2
		80-18-12	R1	NLG strut assembly	8	2
		82-08-02		Electrical wiring inspection	11	2
		82-21-03		Fire detection	12	2
		83-09-02		Strobe light assemblies	13	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-36A	A10SW	80-04-01		Avionic equipment mounting shelf	7	2
		81-25-04	R1	Electrical wiring inspection	10	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-40	A10SW	79-24-02		Outer fuel tank wiring	7	2
		81-25-04	R1	Electrical wiring inspection	10	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MU-2B-60	A10SW	79-24-02		Outer fuel tank wiring	7	2
		80-04-01		Avionic equipment mounting shelf	7	2
		81-25-04	R1	Electrical wiring inspection	10	2
		84-12-04		Temp. placard anti-ice system	13	2
		84-25-02		Trim tab brackets	14	2
		85-04-03	R1	Pitot system modification .... Rev. BW 86-12		2
MOONEY AIRCRAFT CORPORATION (See UNIVAIR)						
M20 Series (Mooney) M-20	2A3	75-23-09		Electric gear systems	3	2
		57-10-01		Landing gear bellcrank bracket	1	1
		58-23-03		Aileron counterbalance brace	1	1
		59-06-03		Hinge bearing brackets	1	1
		59-14-02		Fuel selector valve	3	1
		61-22-07		Fuel and oil pressure gage lines	3	1
		63-10-05		Empennage attach brackets	3	1
		65-22-03		Tail truss	4	1
		67-11-05		Tail truss replacement	5	1

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AIRCRAFT MAKE & MODEL	TC NO.	AC NUMBER*	SUBJECT	PAGE NO.**	BOOK NO.
		73-21-01	Flight control landing gear system	1	2
		76-15-01	Wood structure	4	2
		77-17-04	Control wheel shaft	9	2
(Mark) M20A	2A3	58-19-03	Carburetor air box rework	1	1
		59-06-03	Hinge bearing brackets	1	1
		59-11-03	Exhaust heater inspection	2	1
		59-14-02	Fuel selector valve	3	1
		59-25-06	Carburetor alternate air source	3	1
		61-22-07	Fuel and oil pressure gage lines	3	1
		63-10-05	Empennage attach brackets	3	1
		65-22-03	Tail truss	4	1
		67-11-05	Tail truss replacement	5	1
		73-21-01	Flight control landing gear systems ...	1	2
		76-15-01	Wood structure	4	2
		77-17-04	Control wheel shaft	9	2
M-20B	2A3	61-22-07	Fuel and oil pressure gage lines	3	1
		73-21-01	Flight control landing gear systems ...	1	2
		77-17-04	Control wheel shaft	9	2
		85-24-03	Fuel tank bays and rib station insp. ..	15	2
M-20C	2A3	66-07-05	Electric landing gear	5	1
		67-23-06	Dukes fuel pump	5	1
		73-21-01	Flight control landing gear systems ...	1	2
		75-04-09	Landing gear actuator	2	2
		75-09-08	Engine mount members	2	2
		76-10-05	Leaking fuel	3	2
		77-17-04	Control wheel shaft	9	2
		78-17-01	Emergency locator transmitter	12	2
		85-24-03	Fuel tank bays and rib station insp. ..	15	2
M20D	2A3	66-07-05	Electric landing gear	5	1
		67-23-06	Dukes fuel pump	5	1
		73-21-01	Flight control landing gear systems ...	1	2
		75-09-08	Engine mount members	2	2
		77-17-04	Control wheel shaft	9	2
		85-24-03	Fuel tank bays and rib station insp. ..	15	2
M20E	2A3	65-12-03	Speed range vibration stresses	4	1
		66-07-05	Electric landing gear	5	1
		67-23-06	Dukes fuel pump	5	1
		73-21-01	Flight control landing gear systems ...	1	2
		75-04-09	Landing gear actuator	2	2
		75-09-08	Engine mount members	2	2
		76-10-05	Leaking fuel	3	2
		77-08-06	Engine oil	8	2
		77-17-04	Control wheel shaft	9	2
		77-18-01	Engine oil cooler	10	2
		80-13-03	Fuel pumps	13	2
		85-24-03	Fuel tank bays and rib station insp. ..	15	2
M20F	2A3	67-22-07	Rudder assembly	5	1
		73-21-01	Flight control landing gear systems ...	1	2
		75-04-09	Landing gear actuator	2	2
		75-09-08	Engine mount members	2	2
		76-10-05	Leaking fuel	3	2
		77-08-06	Engine oil	8	2
		77-17-04	Control wheel shaft	9	2
		77-18-01	Engine oil cooler	10	2
		78-15-02	MLG side brace bolts	11	2
		78-17-01	Emergency locator transmitter	12	2
		79-06-04	Elevator control lock	12	2
		80-13-03	Fuel pumps	13	2
		85-24-03	Fuel tank bays and rib station insp. ..	15	2
M20G	2A3	73-21-01	Flight control landing gear systems ...	1	2
		75-09-08	Engine mount members	2	2
		77-17-04	Control wheel shaft	9	2
		85-24-03	Fuel tank bays & rib station insp.	15	2
M20J	2A3	77-06-01	Instrument conditions	8	2
		77-08-06	Engine oil	8	2
		77-18-01	Engine oil cooler	10	2
		78-15-02	MLG side brace bolts	11	2
		78-17-01	Emergency locator transmitter	12	2
		79-06-04	Elevator control lock	12	2
		80-13-03	Fuel pumps	13	2
		80-17-03	Oil pressure fittings	14	2
		85-24-03	Fuel tank bays and rib station insp. ..	15	2
M20K	2A3	80-02-12	Fuselage tubular structure	12	2
		85-24-03	Fuel tank bays and rib station insp. ..	15	2
M22	A6SW	85-24-03	Fuel tank bays and rib station insp. ..	15	2

MOONEY MITE AIRCRAFT CORPORATION

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M18 Series	A-803	51-03-01	Fuel line rework	1	1
		53-17-01	Control stick boot	1	1
		59-23-03	Empennage	1	1
M-18C	A-803	79-11-05 R1	Wood deterioration	1	2
		79-18-07	Wood deterioration	1	2
M-18C55	A-803	79-11-05 R1	Wood deterioration	1	2
		79-18-07	Wood deterioration	1	2
M-18L	A-803	50-01-01	Engine mount reinforcement	1	1
		53-20-03	Landing gear bellcrank	1	1
		79-11-05 R1	Wood deterioration	1	2
		79-18-07	Wood deterioration	1	2
M-18LA	A-803	79-11-05 R1	Wood deterioration	1	2
		79-18-07	Wood deterioration	1	2
MORANE-SAULNIER (See S.O.C.A.T.A.)					
M.S. 760 (Paris I)	7A3	66-08-05	Rudder control system rod	1	1
		77-15-14	Landing gear wheels	1	2
M.S. 760A (Paris IA)	7A3	66-08-05	Rudder control system rod	1	1
		77-15-14	Landing gear wheels	1	2
M.S. 760B (Paris II)	7A3	66-08-05	Rudder control system rod	1	1
		76-06-07	Inflight fire	1	2
MORRISEY AVIATION, INC. (See VARGA AIRCRAFT)					
MULTITECH ENGINEERING CORP. (Formerly TEMCO, NAVION)					
(Temco) D-16, D-16A, Twin Navion	2A1	55-06-01	Fuselage fuel tank enclosure	1	1
		63-16-05	Main landing gear actuating cylinders	1	1
		63-16-06	Gear selector valve and fitting	1	1
		63-21-05	Main and nose retraction links	1	1
		64-08-04	Nose landing gear	2	1
NAVAL AIRCRAFT FACTORY					
N3N-3	A-2-569	60-03-06	Control stick	1	1
NAVION AIRCRAFT CO. (NORTH AMERICAN, RYAN) (See MULTITECH, THOMPSON ENTERPRISE)					
NOORDUYN NORSEMAN AIRCRAFT LTD.					
Army UC-64	A-2-578	46-23-05	Horizontal stabilizer drain holes	1	1
		46-23-06	Surface combustion fuel burning heater	1	1
		48-49-02	Float wire brace	1	1
Army UC-64A	2-578	46-23-05	Horizontal stabilizer drain holes	1	1
		46-23-06	Surface combustion fuel burning heater	1	1
		48-49-02	Float wire brace	1	1
Army UC-64B	2-578	46-23-05	Horizontal stabilizer drain holes	1	1
		46-23-06	Surface combustion fuel burning heater	1	1
		48-49-02	Float wire brace	1	1
Army UC-64AB	2-578	48-49-02	Float wire brace	1	1
NORTH AMERICAN AVIATION, INC., OHIO (Also see THOMPSON ENTERPRISE)					
Army BC-1A	2-575	46-11-01	Landing gear retracting strut	1	1
		46-17-01	Flap control universal joint pins	1	1
		46-46-02	Elevator stop	1	1
		49-07-02	Fuel system placard	2	1
		50-09-01	Stabilizer spar fittings and shims	2	1
AT-6 (SNJ-2)	2-575	46-11-01	Landing gear retracting strut	1	1
		46-17-01	Flap control universal joint pins	1	1
		46-46-02	Elevator stop	1	1
		49-07-02	Fuel system placard	2	1
		50-09-01	Stabilizer spar fittings and shims	2	1
		50-38-01	Fuselage structure corrosion	2	1
AT-6A (SNJ-3)	2-575	46-11-01	Landing gear retracting strut	1	1
		46-17-01	Flap control universal joint pins	1	1
		46-46-02	Elevator stop	1	1
		49-07-02	Fuel system placard	2	1

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		50-09-01		Stabilizer spar fittings and shims	2	1
		50-38-01		Fuselage structure corrosion	2	1
AT-6B	2-575	46-11-01		Landing gear retracting strut	1	1
		46-17-01		Flap control universal joint pins	1	1
		46-46-02		Elevator stop	1	1
		49-07-02		Fuel system placard	2	1
		50-09-01		Stabilizer spar fittings and shims	2	1
		50-38-01		Fuselage structure corrosion	2	1
AT-6C (SNJ-4)	2-575	46-11-01		Landing gear retracting strut	1	1
		46-17-01		Flap control universal joint pins	1	1
		46-46-02		Elevator stop	1	1
		49-07-02		Fuel system placard	2	1
		50-09-01		Stabilizer spar fittings and shims	2	1
		50-38-01		Fuselage structure corrosion	2	1
AT-6D (SNJ-5)	2-575	50-38-01		Fuselage structure corrosion	2	1
		81-14-10		Vertical and horizontal stabilizers ...	1	2
AT-6F (SNJ-6, -7)	2-575	50-38-01		Fuselage structure corrosion	2	1
		81-14-10		Vertical and horizontal stabilizers ...	1	2
T-6G	2-575	50-38-01		Fuselage structure corrosion	2	1
		81-14-10		Vertical and horizontal stabilizers ...	1	2
Nomad NA-260 (T-28A)	1A18	58-22-02		Landing gear trunnion shaft	3	1
		61-05-05		Wright R-1300-1A engines	3	1

NORTH AMERICAN ROCKWELL
(See AIRCRAFT PARTS & DEVELOPMENT CORP., S.I. INDUSTRIES, GULFSTREAM AMERICAN)

PARTENAVIA COSTRUZIONI AERONAUTICHE S.p.A.

P68 Series	A31EU	83-12-04		Bellcrank attach. mounting brackets ...	5	2
P68	A31EU	80-01-01		Stabilator balance weight	1	2
		80-15-02		Rudder control system	1	2
		81-07-03		Propeller pitch control system	2	2
		81-07-08		Longitudinal trim tab	3	2
		82-18-11		Wheel shaft universal joints	4	2
		83-05-07		Oil Cooler fittings and hoses	4	2
		83-07-22	R1	Flap selector switch replacement	5	2
		83-12-04		Flap bellcrank attach mountings	5	2
		83-14-03		Fin rear spar	6	2
		83-15-04		Torque support brackets	6	2
		85-08-04		Wing spars	7	2
		85-08-06		Aileron control	7	2
P68B	A31EU	80-01-01		Stabilator balance weight	1	2
		80-15-02		Rudder control system	1	2
		81-07-03		Propeller pitch control system	2	2
		81-07-08		Longitudinal trim tab	3	2
		82-18-11		Wheel shaft universal joints	4	2
		83-05-07		Oil cooler fittings and hoses	4	2
		83-07-17		Fuel selector control	5	2
		83-07-22	R1	Flap selector switch replacement	5	2
		83-12-04		Flap bellcrank attach mountings	5	2
		83-14-03		Fin rear spar	6	2
		83-15-04		Torque support brackets	6	2
		85-08-04		Wing spars	7	2
		85-08-06		Aileron control	7	2
P68C	A31EU	83-07-17		Fuel selector control	5	2
		83-07-22	R1	Flap selector switch replacement	5	2
		83-12-04		Flap bellcrank attach mountings	5	2
		83-15-04		Torque support brackets	6	2
		85-08-04		Wing spars	7	2
		85-08-06		Aileron control	7	2
P68C-TC	A31EU	83-07-22	R1	Flap selector switch replacement	5	2
		83-12-04		Flap bellcrank attach mountings	5	2
		83-15-04		Torque support brackets	6	2
		85-08-04		Wing spars	7	2
		85-08-06		Aileron control	7	2
P68 Observer	A31EU	83-12-04		Flap bellcrank attach mountings	5	2
		83-15-04		Torque support brackets	6	2
		85-08-04		Wing spars	7	2
		85-08-06		Aileron control	7	2

PIAGGIO & C.
(See also INDUSTRIE AERONAUTICHE E MECCANICHE)

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P.136-L1	A-813	58-17-04		Water rudder modification	1	1
		59-23-01		Water rudder cable guard	1	1
		61-26-03		Fuel vent lines	1	1
P.136-L2	A-813	58-17-04		Water rudder modification	1	1
		59-22-01		Oil breather lines	1	1
		59-23-01		Water rudder cable guard	1	1
		60-23-03		Oil lines	1	1
		61-26-03		Fuel vent lines	1	1
DON PICCARD BALLOONS, INC. (See Galaxy Balloons)						
PILATUS AIRCRAFT LTD.						
PC-6 Series	7A15	66-01-03		Fuel valve	1	1
		66-28-05		Rudder pedal support	1	1
		67-12-05		Pulley fairleads	1	1
		67-13-03		Rudder control lever rivets	1	1
		67-21-02		Elevator attachment bracket	2	1
		67-32-04		Stabilizer cable trim control clamps	2	1
		68-10-06		Horizontal stabilizer	3	1
		68-17-03		Cracks in rudder end rib	3	1
		69-04-04		Aileron balance bolt	4	1
		69-07-02		Aileron balance unit	4	1
		69-19-01		Pivot bolt rotation	5	1
		69-20-01		Rudder trim control cable	5	1
		71-23-01		Safety of aileron cable turnbuckles	1	2
		75-27-06		Fuel leak fittings	2	2
		75-27-07		Rudder bars	3	2
		76-01-09		Elevator attach brackets	4	2
		77-13-06		Landing flaps	4	2
		77-20-06		Wing strut corrosion	5	2
PC-6	7A15	85-16-09		Vertical/horizontal stabilizer	6	2
PC-6/A	7A15	75-26-17		Engine mount	2	2
PC-6/B-H2	7A15	69-05-05		Power lever travel	4	1
PC-6/B1-H2	7A15	69-05-05		Power lever travel	4	1
		70-18-03		Flight manual and switch	5	1
B4-PC11	G2SEU	75-16-05		Aileron control bolts	1	2
		75-16-11		Rudder control cables	2	2
		75-17-08		Canopy jettisoning capability	2	2
PILATUS BRITTEN-NORMAN, LTD. (See BRITTEN-NORMAN)						
BN-2	A17EU	69-13-01		Nose wheel steering	1	1
		69-13-08		Fuel line leak	1	1
		70-02-06		Elevator trim tab attach	1	1
		70-03-06		Rudder bar assembly	2	1
		70-06-04		Fuselage attach spindles	2	1
		70-06-05		Elevator trim system drive	2	1
		70-07-04		Tail plane front spar	3	1
		70-07-05		Carburetor air box	3	1
		70-12-11		Flap actuating system	3	1
		71-05-05		Elevator trim tab system	1	2
		76-13-12		Flap retraction	4	2
		82-24-06	R1	Carburetor air box shutter	7	2
		83-07-12	R1	Fuel transmitter floats	8	2
		83-10-06		Elevator trim tabs	8	2
		83-23-01		Wing tank fuel system mod.	9	2
		84-23-06		Engine mounting brackets	10	2
		86-07-02		Torque link lug and upper case BW 86-10		2
BN-2A Series	A17EU	71-05-05		Elevator trim tab systems	1	2
		75-24-07	R1	Rudder bar units	1	2
		75-26-01		Rudder control	2	2
		75-26-15		Aileron mass balance	3	2
		76-02-04		Engine mounting frame	3	2
		76-13-12		Flap retraction	4	2
		76-21-07		Engine mounting	5	2
		77-07-10		Aileron mass balance support arm	5	2
		78-11-08		Elevator and flap control rods	6	2
		82-24-06	R1	Carburetor air box shutter	7	2
		83-07-12	R1	Fuel transmitter floats	8	2
		83-10-06		Elevator trim tabs	8	2
		83-23-01		Wing tank fuel system mod.	9	2
BN-2A	A17EU	69-13-01		Nose wheel steering	1	1
		69-13-08		Fuel line leak	1	1
		70-02-06		Elevator trim tab attach	1	1
		70-03-06		Rudder bar assembly	2	1

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		70-06-04	Fuselage attach spindles	2	1
		70-06-05	Elevator trim system drive	2	1
		70-07-04	Tail plane front spar	3	1
		70-07-05	Carburetor air box	3	1
		70-12-11	Flap actuating system	3	1
		76-06-05	Pilot's seat	4	2
		83-05-02	Teleflex swivel assembly insp.	7	2
		84-23-06	Engine mounting brackets	10	2
BN-2B Series	A17EU	83-07-12 R1	Fuel transmitter floats	8	2
		83-10-06	Elevator trim tabs	8	2
		83-23-01	Wing tank fuel system mod.	9	2
		84-23-06	Engine mounting brackets	10	2
BN-2T	A17EU	84-23-06	Engine mounting brackets	10	2
PILOT PERSONNEL INTERNATIONAL, INC.					
UH-1B	R3NM	80-17-09	Main rotor straps	1	2
		83-03-03	Tail boom skin joint	1	2
		83-20-01	Tail rotor hub assembly	2	2
		84-18-03	Clevis inspection	3	2
		86-07-07	Universal assembly - main rotor SW 86-07		2
PINE AIR (See KWAD COMPANY)					
PIPER AIRCRAFT CORP. J-2 Series	ATC 595	81-25-05	Wing lift strut forks	132	2
J-3 Series	ATC 660, A-698, A-691, 695, A-692	78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
J-3	ATC 660	47-50-03	Canvas seat inspection	3	1
		49-14-01	Elevator connector tube fitting	4	1
		52-07-03	Lift strut rework	6	1
		58-01-07	Control system turnbuckles	12	1
		58-12-02	Aileron hinge brackets	12	1
		68-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
J3C Series	A-691	47-50-03	Canvas seat inspection	3	1
		49-14-01	Elevator connector tube fitting	4	1
		50-05-01	Micopress sleeve rework	5	1
		52-07-03	Lift strut rework	6	1
		58-01-07	Control system turnbuckles	12	1
		58-12-02	Aileron hinge brackets	12	1
		68-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
J3C-65	A-691	46-37-01	Fuel strainer gasket	1	1
		46-37-02	Fuel strainer position	1	1
		47-50-06	Shock strut cracks	3	1
J3C-65S	A-691	46-37-01	Fuel strainer gasket	1	1
		46-37-02	Fuel strainer position	1	1
		47-50-06	Shock strut cracks	3	1
J3F Series	A-692	47-50-03	Canvas seat inspection	3	1
		49-14-01	Elevator connector tube fitting	4	1
		52-07-03	Lift strut rework	6	1
		58-01-07	Control system turnbuckles	12	1
		58-12-02	Aileron hinge brackets	12	1
		68-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
J3L Series	A-698	47-50-03	Canvas seat inspection	3	1
		49-14-01	Elevator connector tube fitting	4	1
		52-07-03	Lift strut rework	6	1
		58-01-07	Control system turnbuckles	12	1
		58-12-02	Aileron hinge brackets	12	1
		68-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
J3P	695	47-50-03	Canvas seat inspection	3	1
		49-14-01	Elevator connector tube fitting	4	1
		52-07-03	Lift strut rework	6	1
		58-01-07	Control system turnbuckles	12	1
		58-12-02	Aileron hinge brackets	12	1
		68-05-01	Exhaust mufflers	39	1

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AIRCRAFT MAKE & MODEL	TC NO.	AC NUMBER*	SUBJECT	PAGE NO.**	BOOK NO.
		77-03-08	Steel wing-lift struts	49	2
J4 Series	A-703, 708, A-740, 721	85-06-04	Fuel tank	155	2
J4, J4A, J4A-2	A-703	48-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
J4B	708	48-05-01	Exhaust mufflers	39	1
J4E (L-4E)	A-740	48-05-01	Exhaust mufflers	39	1
J4F	721	48-05-01	Exhaust mufflers	39	1
J5 Series (AE-1, NE-1)	A-725	58-01-07	Control system turnbuckles	12	1
		48-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
L-14	760	81-25-05	Wing lift strut forks	132	2
PA-11	A-691	47-50-06	Shock strut cracks	3	1
		48-03-03	Header tank installation	3	1
		49-14-01	Elevator connector tube fitting	4	1
		50-05-01	Micogress sleeve rework	5	1
		52-07-03	Lift strut rework	6	1
		58-12-02	Aileron hinge brackets	12	1
		48-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
PA-11S	A-691	52-07-03	Lift strut rework	6	1
		58-12-02	Aileron hinge brackets	12	1
		48-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
PA-12	A-780	46-36-02	Airscoop rework	1	1
		46-36-03	Muffler brace	1	1
		46-37-01	Fuel strainer gasket	1	1
		47-22-03	Landing gear tie strap	1	1
		47-47-01	Landing gear reinforcement	2	1
		47-47-02	Battery box insulating spacer	2	1
		47-47-04	Starter solenoid replacement	2	1
		48-01-02	Cowl support braces	3	1
		48-13-03	Battery hold down brackets	4	1
		48-13-04	Fuse-clip attachment	4	1
		48-14-01	Fuel line elbow	4	1
		49-14-01	Elevator connector tube fitting	4	1
		49-27-02	Aileron bellcrank castings	5	1
		50-05-01	Micogress sleeve rework	5	1
		51-21-02	Aileron hinge brackets	5	1
		60-01-07	Tail brace wires	15	1
		48-05-01	Exhaust mufflers	39	1
		74-17-04	Fabric reinforcement	22	2
		76-06-06	PA-14 wing flaps	38	2
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
PA-12S	A-780	46-37-01	Fuel strainer gasket	1	1
		47-47-03	Seaplane fuselage inspection	2	1
		49-14-01	Elevator connector tube fitting	4	1
		50-05-01	Micogress sleeve rework	5	1
		51-21-02	Aileron hinge brackets	5	1
		60-01-07	Tail brace wires	15	1
		48-05-01	Exhaust mufflers	39	1
		74-17-04	Fabric reinforcement	22	2
		76-06-06	PA-14 wing flaps	38	2
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
PA-14	A-797	49-27-02	Aileron bellcrank castings	5	1
		60-01-07	Tail brace wires	15	1

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AIRCRAFT MAKE & MODEL	TC NO.	AC NUMBER*	SUBJECT	PAGE NO.**	BOOK NO.
		68-05-01	Exhaust mufflers	39	1
		74-17-04	Fabric reinforcement	22	2
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
PA-15	A-800	50-23-01	Shock strut fittings	5	1
		58-12-02	Aileron hinge brackets	12	1
		68-05-01	Exhaust mufflers	39	1
		74-17-04	Fabric reinforcement	22	2
		77-03-08	Steel wing-lift struts	49	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
PA-16	1A1	51-23-03	Battery box insulation	6	1
		57-22-01	Fire prevention rework	11	1
		58-12-02	Aileron hinge brackets	12	1
		68-05-01	Exhaust mufflers	39	1
		74-17-04	Fabric reinforcement	22	2
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
PA-16S	1A1	57-22-01	Fire prevention rework	11	1
		58-12-02	Aileron hinge brackets	12	1
		68-05-01	Exhaust mufflers	39	1
		74-17-04	Fabric reinforcement	22	2
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
PA-17	A-805	50-23-01	Shock strut fittings	5	1
		58-12-02	Aileron hinge brackets	12	1
		68-05-01	Exhaust mufflers	39	1
		74-17-04	Fabric reinforcement	22	2
		77-03-08	Steel wing-lift struts	49	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
PA-18 Series	1A2	53-04-01	Control stick attachment	7	1
		60-10-08	Fuel selector valve	17	1
		62-02-05	Rudder cable attachment lug	19	1
		68-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-06-04	Fuel tank	155	2
PA-18	1A2	51-19-02	Oil radiator hose	5	1
		53-24-04	Fuel-hydraulic lines	7	1
		59-10-08	Gas tank cap vent	14	1
		72-01-07	Failure of engine mount	6	2
PA-18A	1A2, AR-7	54-19-01	Brake line cover plate	7	1
		59-10-08	Gas tank cap vent	14	1
		62-02-05	Rudder cable attachment lug	19	1
		72-01-07	Failure of engine mount	6	2
		85-06-04	Fuel tank	155	2
PA-18-105	1A2	72-01-07	Failure of engine mount	6	2
PA-18-125	1A2	72-01-07	Failure of engine mount	6	2
PA-18-135	1A2	72-01-07	Failure of engine mount	6	2
PA-18-150	1A2	61-16-05	Control cable replacement	17	1
		69-23-03	Lower longeron inspection	47	1
		81-06-08	Lower fuselage attachment tab	123	2
PA-18A-150	1A2	61-16-05	Control cable replacement	17	1
PA-18S-150	1A2	61-16-05	Control cable replacement	17	1
PA-18AS-150	1A2	61-16-05	Control cable replacement	17	1
PA-18A-125	AR7	61-16-05	Control cable replacement	17	1
		72-01-07	Failure of engine mount	6	2
PA-18A-135	AR7	61-16-05	Control cable replacement	17	1
		72-01-07	Failure of engine mount	6	2
PA-19	1A2	68-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2

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AIRCRAFT MAKE & MODEL	TC NO.	AI NUMBER*	SUBJECT	PAGE NO.**	BOOK NO.
		81-25-05	Wing lift strut forks	132	2
PA-19S	1A2	60-05-01	Exhaust mufflers	39	1
		77-03-08	Steel wing-lift struts	49	2
		81-25-05	Wing lift strut forks	132	2
PA-20 Series	1A9	57-22-01	Fire prevention rework	11	1
		60-01-07	Tail brace wires	15	1
		60-10-08	Fuel selector valve	17	1
		60-05-01	Exhaust mufflers	39	1
		72-21-03	Fuel line failure	10	2
		74-17-04	Fabric reinforcement	22	2
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-02-05	Piper P/N 81090-02 placard instln.	154	2
		85-06-04	Fuel tank	155	2
PA-20	1A9	51-19-02	Oil radiator hose	5	1
		51-23-03	Battery box insullation	6	1
		53-24-04	Fuel-hydraulic lines	7	1
		58-16-01	Cigar lighter fuse	12	1
		59-10-08	Gas tank cap vent	14	1
PA-22 Series	1A6	51-27-03	Nose wheel drain	6	1
		55-07-02	Landing gear tube reinforcement	7	1
		55-08-04	Ignition filter replacement	8	1
		55-22-03	Fuel tank cap	9	1
		57-22-01	Fire prevention rework	11	1
		58-16-01	Cigar lighter fuse	12	1
		60-01-07	Tail brace wires	15	1
		60-10-08	Fuel selector valve	17	1
		67-24-02	Engine fuel starvation	36	1
		60-05-01	Exhaust mufflers	39	1
		72-21-03	Fuel line failure	10	2
		74-17-04	Fabric reinforcement	22	2
		77-03-08	Steel wing-lift struts	49	2
		78-10-03	Fuel venting	63	2
		81-25-05	Wing lift strut forks	132	2
		85-02-05	Piper P/N 81090-02 placard instln.	154	2
		85-06-04	Fuel tank	155	2
PA-22	1A6	51-19-02	Oil radiator hose	5	1
		51-23-03	Battery box insullation	6	1
		53-24-04	Fuel-hydraulic lines	7	1
		59-10-08	Gas tank cap vent	14	1
		64-05-04	Upper main oleo bearings	24	1
		73-09-06	Throttle hangup	12	2
PA-22-108	1A6	64-05-04	Upper main oleo bearings	24	1
PA-22-135	1A6	60-01-07	Tail brace wires	15	1
		64-05-04	Upper main oleo bearings	24	1
PA-22-150	1A6	60-01-07	Tail brace wires	15	1
		60-05-03	Safety belt	16	1
		61-16-05	Control cable replacement	17	1
		64-05-04	Upper main oleo bearings	24	1
		73-09-06	Throttle hangup	12	2
PA-22S-150	1A6	61-16-05	Control cable replacement	17	1
		73-09-06	Throttle hangup	12	2
PA-22-160	1A6	60-01-07	Tail brace wires	15	1
		60-05-03	Safety belt	16	1
		61-16-05	Control cable replacement	17	1
		64-05-04	Upper main oleo bearings	24	1
		73-09-06	Throttle hangup	12	2
PA-22S-160	1A6	61-16-05	Control cable replacement	17	1
		73-09-06	Throttle hangup	12	2
PA-23 Series	1A10	55-21-02	Front wing spar attachment fitting	9	1
		57-21-01	Rudder trim tab pin	11	1
		58-22-03	Goodrich G-3-787 wheel	12	1
		63-07-03	Rudder trim tabs	22	1
		63-24-03	Rudder trim tab control rod assy	23	1
		71-18-03	Left nose wheel door hinge	5	2
		79-11-06	Landing gear selector lever	85	2
PA-23	1A10	55-11-02	Thermal relief valves	8	1
		55-13-01	Idler bellcrank installation	8	1
		55-14-02	Hydraulic cylinder replacement	8	1
		56-27-03	Aileron balance weight brackets	9	1
		57-01-02	Stabiliser attachment bolts	9	1
		57-05-03	Elevator push-pull tube	10	1

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		57-10-02		Oil pressure gage line	10	1
		57-13-08		Anti-retraction device	10	1
		57-19-01		Elevator rod end bearing	10	1
		58-01-06		Stabilizer fitting	11	1
		58-04-03		Rudder trim tab adjustment screw	12	1
		59-08-03		Operating limitations placard	13	1
		60-03-07		Engine starter solenoid	15	1
		60-03-08		Fuel control cable and wire	16	1
		63-12-02		Elevator rib cracks	22	1
		63-26-03		Tail area inspection	23	1
		69-13-03		Heater exhaust tube	45	1
		71-12-01		Engine control support bracket	3	2
		74-22-05		Full valve stem and cap nut	25	2
		78-08-03		Hinge bracket assembly	62	2
		80-18-10		Fuel selector valves	107	2
		80-26-04	R1	Rudder pulley at cabin step	120	2
		81-04-05	R1	Flap-spar hinge attachment	122	2
		85-02-05		Piper P/N 81090-02 placard instln.	154	2
PA-23-160	1A10	60-03-08		Fuel control cable and wire	16	1
		63-07-03		Rudder trim tabs	23	1
		63-26-03		Rudder trim tab control rod assy	23	1
		63-26-03		Tail area inspection	23	1
		69-13-03		Heater exhaust tube	45	1
		71-12-01		Engine control support bracket	3	2
		74-22-05		Full valve stem and cap nut	25	2
		78-08-03		Hinge bracket assembly	62	2
		80-18-10		Fuel selector valves	107	2
		80-26-04	R1	Rudder pulley at cabin step	120	2
		85-02-05		Piper P/N 81090-02 placard instln.	154	2
PA-23-235	1A10	69-13-03		Heater exhaust tube	45	1
		72-11-01		Possible fire from fuel vapor	7	2
		74-06-01		AiResearch turbochargers	15	2
		74-13-03		Stabilator attach bolts	19	2
		74-22-05		Full valve stem and cap nut	25	2
		80-18-10		Fuel selector valves	107	2
		80-26-04	R1	Rudder pulley at cabin step	120	2
		81-04-05	R1	Flap-spar hinge attachment	122	2
		83-22-01		Fuel weight limitations	153	2
		85-02-05		Piper P/N 81090-02 placard instln.	154	2
PA-23-250	1A10	66-21-05		Hartzell propeller governors	26	1
		66-18-03		Induction system icing	30	1
		68-07-04		Engine mount	40	1
		68-21-03		Exhaust tailpipe	43	1
		69-13-03		Heater exhaust tube	45	1
		70-22-05		Electrical system modification	50	1
		71-12-01		Engine control support bracket	3	2
		71-12-05		Electric trim switch mod.	3	2
		71-21-06		Engine fire wall flex duct	5	2
		72-11-01		Possible fire from fuel vapor	7	2
		72-14-05		Engine exhaust system stacks	7	2
		72-21-07		Longitudinal stability	10	2
		74-06-01		AiResearch turbochargers	15	2
		74-10-01		Outboard flap hinge	18	2
		74-13-03		Stabilator attach bolts	19	2
		74-22-05		Full valve stem and cap nut	25	2
		75-11-05		Glare shield panel	32	2
		76-11-07		Magnetic compass deviations	40	2
		77-01-05		Strobe NAV light wire	47	2
		77-09-10		Electric trim switch	51	2
		77-23-09		Fuel flow	58	2
		78-02-03		Stabilator	60	2
		79-26-01		Stabilator skins and frame	93	2
		80-18-10		Fuel selector valves	107	2
		80-26-04	R1	Rudder pulley at cabin step	120	2
		81-04-05	R1	Flap-spar hinge attachment	122	2
		83-22-01		Fuel weight limitations	153	2
		85-02-05		Piper P/N 81090-02 placard instln.	154	2
PA-B23-250	1A10	66-18-03		Induction system icing	30	1
		68-21-03		Exhaust tailpipe	43	1
		69-13-03		Heater exhaust tube	45	1
		71-12-05		Electric trim switch mod.	3	2
		72-11-01		Possible fire from fuel vapor	7	2
		72-14-05		Engine exhaust system stacks	7	2
		74-06-01		AiResearch turbochargers	15	2
		74-22-05		Full valve stem and cap nut	25	2
		77-23-09		Fuel flow	58	2
		80-18-10		Fuel selector valves	107	2
		83-22-01		Fuel weight limitations	153	2
PA-24 Series	1A15	61-16-06		Fuel selector valve handles	18	1
		62-26-05		Exhaust system	28	1
		63-27-03		Landing gear retraction motor circuit	29	1

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		68-05-01		Exhaust mufflers	39	1
PA-24	1A15	58-25-05		Door latch modification	13	1
		59-06-05		Nose gear bungee	13	1
		58-07-05		Oil cooler lines clearance	13	1
		59-12-09		Control wheel sprocket stud	14	1
		59-13-02		Aileron balance weight	14	1
		59-26-02		Fuel cell vent tubes	14	1
		60-24-03		Fuel vent tubes	17	1
		62-10-03		Aileron counterweight bay rework	19	1
		64-22-03		Landing gear safety switch	27	1
		65-25-03		Nose landing gear drag link clevis	29	1
		68-13-03		Fuel cell collapse	42	1
		72-22-05		Operation limitation placard	11	2
		74-13-01		Stabilator torque tube	18	2
		74-13-03		Stabilator attach bolts	19	2
		75-05-02		Engine oil	29	2
		75-12-06		Fin forward spar	32	2
		75-27-08		Torque tube bearing fittings	36	2
		77-08-01		Aileron spar cracks	50	2
		77-13-21		Prevent landing gear collapse	54	2
		79-20-10		Incorporation of Piper Kit 763893	91	2
		82-19-01		Wing main spar lower caps	138	2
		82-23-01	R1	Placard near flap actuator	140	2
		83-19-03		Lower spar cap inspection	151	2
		85-02-05		Piper P/N 81090-02 placard instln.	154	2
PA-24-250	1A15	59-06-05		Nose gear bungee	13	1
		59-12-09		Control wheel sprocket stud	14	1
		59-13-02		Aileron balance weight	14	1
		59-26-02		Fuel cell vent tubes	14	1
		60-24-03		Fuel vent tubes	17	1
		61-16-06		Fuel selector valve handles	18	1
		61-20-02		Exhaust stack reinforcement	18	1
		62-10-03		Aileron counterweight bay rework	19	1
		62-26-05		Exhaust system	20	1
		63-27-03		Landing gear retraction motor circuit	24	1
		64-10-04		Carburetor air box deflector vanes	26	1
		64-22-03		Landing gear safety switch	27	1
		65-11-04		Stabilator control system	28	1
		65-25-03		Nose landing gear drag link clevis	29	1
		68-13-03		Fuel cell collapse	42	1
		72-22-05		Operation limitation placard	11	2
		74-13-01		Stabilator torque tube	18	2
		74-13-03		Stabilator attach bolts	19	2
		75-05-02		Engine oil	29	2
		75-12-06		Fin forward spar	32	2
		75-27-08		Torque tube bearing fittings	36	2
		76-19-07		Stabilator weight assy	44	2
		77-08-01		Aileron spar cracks	50	2
		77-13-21		Prevent landing gear collapse	54	2
		79-20-10		Incorporation of Piper Kit 763893	91	2
		82-19-01		Wing main spar lower caps	138	2
		82-23-01	R1	Placard near flap actuator	140	2
		83-19-03		Lower spar cap inspection	151	2
		85-02-05		Piper P/N 81090-02 placard instln.	154	2
PA-24-260	1A15	65-11-04		Stabilator control system	28	1
		66-18-04		Baggage door latch	30	1
		71-12-05		Electric trim switch mod.	3	2
		72-22-05		Operation limitation placard	11	2
		74-13-01		Stabilator torque tube	18	2
		74-13-03		Stabilator attach bolts	19	2
		75-05-02		Engine oil	29	2
		75-12-06		Fin forward spar	32	2
		75-27-08		Torque tube bearing fittings	36	2
		76-19-07		Stabilator weight assy	44	2
		77-08-01		Aileron spar cracks	50	2
		77-09-10		Electric trim switch	51	2
		77-13-21		Prevent landing gear collapse	54	2
		79-20-10		Incorporation of Piper Kit 763893	91	2
		82-19-01		Wing main spar lower caps	138	2
		82-23-01	R1	Placard near flap actuator	140	2
		83-19-03		Lower spar cap inspection	151	2
		85-02-05		Piper P/N 81090-02 placard instln.	154	2
PA-24-400	1A15	65-11-04		Stabilator control system	28	1
		66-30-07		Fuel purge valve hose assembly	33	1
		74-13-01		Stabilator torque tube	18	2
		74-13-03		Stabilator attach bolts	19	2
		75-12-06		Fin forward spar	32	2
		75-27-08		Torque tube bearing fittings	36	2
		77-08-01		Aileron spar cracks	50	2
		77-13-21		Prevent landing gear collapse	54	2
		79-12-08		Fuel selector valves	86	2
		79-20-10		Incorporation of Piper Kit 763863	91	2

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		83-19-01	Wing main spar lower caps	138	2
		83-10-01	Water and fuel system insp.	147	2
		83-19-03	Lower spar cap inspection	151	2
		85-02-05	Piper P/N 81090-02 placard instln.	154	2
		77-03-08	Steel wing-lift struts	49	2
PA-25 Series	2A8 & 2A10	80-21-08	Forward wing spars	113	2
		62-02-06	Wing spar hinge fitting	19	1
PA-25	2A8 &	65-15-05	Elevator control system	29	1
	A10	72-24-02	Throttle movement placard	11	2
		73-26-01	Forward wing spars	15	2
		77-21-06	Fuselage steel tubing cluster	96	2
		85-02-05	Piper P/N 81090-02 placard instln.	154	2
		63-17-05	Landing gear shock struts	22	1
PA-25-235	2A8 & 2A10	64-24-05	Fuselage landing gear fitting seals	27	1
		65-15-05	Elevator control system	29	1
		67-14-07	Engine exhaust system	34	1
		73-15-05	Cracks in hopper bay longerons	14	2
		73-26-01	Forward wing spars	15	2
		76-18-02	Fuel lines	23	2
		77-21-06	Fuselage steel tubing cluster	56	2
		85-02-05	Piper P/N 81090-02 placard instln.	154	2
		73-26-01	Forward wing spars	15	2
PA-25-260	2A8 & 2A10	76-18-02	Fuel lines	23	2
		77-21-06	Fuselage steel tubing cluster	56	2
		85-02-05	Piper P/N 81090-02 placard instln.	154	2
		62-19-03	Propeller attach bolts	20	1
PA-28 Series	2A13	64-06-06	Control wheels	25	1
		67-20-04	Main landing gear torque link	35	1
		67-26-02	Fuel selector valve	37	1
		65-06-06	Fuel quantity gauge sender units	28	1
PA-28-140	2A13	67-12-06	Inspect tubes for internal corrosion	32	1
		67-26-03	Fuel systems screens and filters	37	1
		69-22-02	Failure of control wheel	46	1
		70-16-05	Cracks in muffler	49	1
		70-18-05	Landing gear torque link bolts	50	1
		70-26-04	Stabilizer balance weight tube	52	1
		71-14-06	To prevent grounding of magnetos	4	2
		71-21-08	Binding of fuel selector handle	5	2
		72-08-06	Main landing gear torque links	6	2
		72-14-07	Bolts in stabilator hinge fittings	8	2
		72-24-02	Throttle movement placard	11	2
		74-06-02	AVCON mufflers	16	2
		74-09-04	Rear seat belt installation	17	2
		74-13-04	Throttle control cable	19	2
		75-02-03	Nose wheel fork assembly	28	2
		75-08-03	Fuel drain valves	30	2
		76-25-06	Oil hose rupture	44	2
		77-01-01	Fuel quantity gage	45	2
		77-23-03	Rod end bearings	57	2
		62-26-06	Exhaust system	21	1
PA-28-150	2A13	65-06-06	Fuel quantity gauge sender units	28	1
		66-20-05	Propeller spinner	30	1
		67-12-06	Inspect tubes for internal corrosion	32	1
		67-26-03	Fuel systems screens and filters	37	1
		69-22-02	Failure of control wheel	46	1
		70-16-05	Cracks in muffler	49	1
		70-18-05	Landing gear torque link bolts	50	1
		70-26-04	Stabilizer balance weight tube	52	1
		71-14-06	To prevent gounding of magnetos	4	2
		72-08-06	Main landing gear torque links	6	2
		72-14-07	Bolts in stabilator hinge fittings	8	2
		72-24-02	Throttle movement placard	11	2
		75-02-03	Nose wheel fork assembly	28	2
		75-08-03	Fuel drain valves	30	2
		77-01-01	Fuel quantity gage	45	2
		74-14-04	Reduced weight placard	20	2
PA-28-151	2A13	74-24-12	Aileron centering assembly	26	2
		75-08-03	Nose wheel fork assembly	30	2
		75-16-04	Carburetor air box valve	33	2
		77-01-01	Fuel quantity gage	45	2
		77-01-03	Carburetor air filter boxes	46	2
		77-23-03	Rod end bearings	57	2
		81-23-05	Seat springs and battery box	129	2
		62-26-06	Exhaust system	21	1
PA-28-160	2A13	65-06-06	Fuel quantity gauge sender units	28	1
		66-20-05	Propeller spinner	30	1
		67-12-06	Inspect tubes for internal corrosion	32	1

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		67-26-03	Fuel systems screens and filters	37	1
		69-22-02	Failure of control wheel	46	1
		70-16-05	Cracks in muffler	49	1
		70-18-05	Landing gear torque link bolts	50	1
		70-26-04	Stabilizer balance weight tube	52	1
		71-14-04	To prevent grounding of magnetos	4	2
		72-08-04	Main landing gear torque links	6	2
		72-14-07	Bolts in stabilator hinge fittings	8	2
		72-29-03	Throttle movement placard	11	2
		75-02-03	Nose wheel fork assembly	28	2
		75-08-03	Fuel drain valves	30	2
		77-01-01	Fuel quantity gage	45	2
PA-28-161	2A13	77-23-03	Rod end bearings	57	2
		79-02-05	Fuel flow	79	2
		79-13-03	Fire hazard prevention	87	2
		79-32-03	Fuel leakage	92	2
		80-14-03	Bendix, King or Narco transmitters	99	2
		81-23-05	Seat springs and battery box	129	2
PA-28S-160	2A13	67-26-03	Fuel systems screens and filters	37	1
		70-16-05	Cracks in muffler	49	1
		72-29-03	Throttle movement placard	11	2
		75-08-03	Fuel drain valves	30	2
PA-28-180	2A13	65-06-06	Fuel quantity gauge sender units	28	1
		66-28-05	Propeller spinner	30	1
		67-13-04	Inspect tubes for internal corrosion	22	1
		67-26-03	Fuel systems screens and filters	37	1
		69-15-01	Control wheel pin	46	1
		69-22-02	Failure of control wheel	46	1
		70-16-05	Cracks in muffler	49	1
		70-18-05	Landing gear torque link bolts	50	1
		70-26-04	Stabilizer balance weight tube	52	1
		71-14-04	To prevent grounding of magnetos	4	2
		71-21-08	Binding of fuel selector handle	5	2
		72-08-04	Main landing gear torque links	6	2
		72-14-07	Bolts in stabilator hinge fittings	8	2
		72-17-05	Electric trim switch	9	2
		74-09-04	Rear seat belt installation	17	2
		74-26-07	To detect incorrect placard	27	2
		75-02-03	Nose wheel fork assembly	28	2
		75-08-03	Fuel drain valves	30	2
		75-24-02	Loose seats	36	2
		77-01-01	Fuel quantity gage	45	2
		77-23-03	Rod end bearings	57	2
		80-29-03	Ammeter terminal posts	119	2
PA-28-181	2A13	77-01-01	Fuel quantity gage	45	2
		77-23-03	Rod end bearings	57	2
		79-13-03	Fire hazard prevention	87	2
		79-32-03	Fuel leakage	92	2
		80-14-02	Throttle cable	99	2
		80-14-03	Bendix, King or Narco transmitters	99	2
		80-29-03	Ammeter terminal posts	119	2
PA-28R-180	2A13	67-26-03	Fuel systems screens and filters	37	1
		70-16-05	Cracks in muffler	49	1
		70-25-04	Stabilizer balance weight tube	52	1
		75-08-03	Fuel drain valves	30	2
PA-28R-180	2A13	68-12-04	Gear retraction fittings	41	1
		69-12-01	Air induction hose	44	1
		69-15-01	Control wheel pin	46	1
		70-09-02	Propeller spinner	48	1
		70-26-04	Stabilizer balance weight tube	52	1
		71-21-08	Binding of fuel selector handle	5	2
		72-14-07	Bolts in stabilator hinge fittings	8	2
		72-17-05	Electric trim switch	9	2
		75-08-03	Fuel drain valves	30	2
		75-24-02	Loose seats	36	2
		76-15-08	Nose gear trunnion	42	2
		77-23-03	Rod end bearings	57	2
		80-19-01	Carbon monoxide in cabin	108	2
PA-28R-200	2A13	69-12-01	Air induction hose	44	1
		69-15-01	Control wheel pin	46	1
		70-09-02	Propeller spinner	48	1
		70-26-04	Stabilizer balance weight tube	52	1
		71-21-08	Binding of fuel selector handle	5	2
		72-14-07	Bolts in stabilator hinge fittings	8	2
		72-17-05	Electric trim switch	9	2
		74-09-04	Rear seat belt installation	17	2
		75-08-03	Fuel drain valves	30	2
		75-24-02	Loose seats	36	2
		76-15-08	Nose gear trunnion	42	2

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		77-01-01		Fuel quantity gage	65	2
		77-23-03		Rod end bearings	57	2
		80-19-01		Carbon monoxide in cabin	108	2
		80-24-03		Ammeter terminal posts	119	2
		81-11-02	R1	Oil drain valves	126	2
		82-06-11	R1	MLG, inspect, rig, modify	130	2
PA-28-201T	2A13	79-13-03		Fire hazard prevention	87	2
		79-22-02		Fuel leakage	92	2
		80-14-03		Bendix, King or Narco transmitters	99	2
		80-24-03		Ammeter terminal posts	119	2
PA-28R-201	2A13	77-23-03		Rod end bearings	57	2
		79-02-05		Fuel flow	78	2
		79-13-03		Fire hazard prevention	87	2
		79-22-02		Fuel leakage	92	2
		80-14-03		Bendix, King or Narco transmitters	99	2
		80-19-01		Carbon monoxide in cabin	108	2
		80-24-03		Ammeter terminal posts	119	2
		81-11-02	R1	Oil drain valves	126	2
		82-06-11	R1	MLG, inspect, rig, modify	130	2
PA-28R-201T	2A13	77-23-03		Rod end bearings	57	2
		79-02-05		Fuel flow	78	2
		79-13-03		Fire hazard prevention	87	2
		79-22-02		Fuel leakage	92	2
		80-14-03		Bendix, King or Narco transmitters	99	2
		80-24-03		Ammeter terminal posts	119	2
		82-06-11	R1	MLG, inspect, rig, modify	130	2
PA-28RT-201	2A13	79-13-03		Fire hazard prevention	87	2
		79-22-02		Fuel leakage	92	2
		80-14-03		Bendix, King or Narco transmitters	99	2
		80-19-01		Carbon monoxide in cabin	108	2
		80-24-03		Ammeter terminal posts	119	2
		81-11-02	R1	Oil drain valves	126	2
		81-12-04		Rudder system	127	2
		82-06-11	R1	MLG, inspect, rig, modify	130	2
PA-28RT-201T	2A13	79-13-03		Fire hazard prevention	87	2
		79-22-02		Fuel leakage	92	2
		80-14-03		Bendix, King or Narco transmitters	99	2
		80-24-03		Ammeter terminal posts	119	2
		81-12-04		Rudder system	127	2
		82-06-11	R1	MLG, inspect, rig, modify	130	2
PA-28-235	2A13	65-06-06		Fuel quantity gauge sender units	20	1
		67-12-06		Inspect tubes for internal corrosion	32	1
		67-26-03		Fuel systems screens and filters	37	1
		69-15-01		Control wheel pin	44	1
		69-22-02		Failure of control wheel	44	1
		70-19-05		Landing gear torque link bolts	50	1
		70-26-04		Stabilizer balance weight tube	52	1
		71-14-06		To prevent grounding of magnetos	6	2
		72-08-06		Main landing gear torque links	6	2
		72-14-07		Bolts in stabilator hinge fittings	8	2
		72-17-05		Electric trim switch	9	2
		74-09-04		Rear seat belt installation	17	2
		74-18-06		Fuel quantity placards	24	2
		74-19-01		Outer wing spars	24	2
		75-02-03		Nose wheel fork assembly	29	2
		75-24-02		Loose seats	36	2
		76-18-04		Fuel valve	43	2
		77-01-01		Fuel quantity gage	45	2
		77-12-01		Fuel system	52	2
		77-23-03		Rod end bearings	57	2
		78-23-01		Fuel drain assembly	72	2
		79-22-02		Fuel leakage	92	2
		80-24-03		Ammeter terminal posts	119	2
PA-28-236	2A13	79-13-03		Fire hazard prevention	87	2
		79-22-02		Fuel leakage	92	2
		80-14-03		Bendix, King or Narco transmitters	99	2
		80-24-03		Ammeter terminal posts	119	2
PA-30	A1EA	64-09-05		Induction system alternate air doors	25	1
		64-16-04		Nose gear retraction tubes	26	1
		64-21-05		Hartzell propeller governor	26	1
		64-28-03		Heavy walled torque tube	27	1
		65-11-04		Stabilator control system	28	1
		66-18-04		Baggage door latch	30	1
		66-20-04		Stabilator system	31	1
		67-19-05		Oxygen cylinder mounting channels	35	1
		69-13-03		Heater exhaust tube	45	1
		69-24-04		Minimum control speed	48	1
		70-15-17		Operating limitation placard	49	1

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		70-23-05		Electrical system modifications	50	1
		71-12-05		Electric trim switch mod.	3	2
		74-13-01		Stabilator torque tube	18	2
		74-13-03		Stabilator attach bolts	18	2
		74-16-00		Aft bulkhead assembly	21	2
		75-27-00		Torque tube bearing fittings	36	2
		76-10-05		Forward fin attachment	43	2
		77-08-01		Aileron spar cracks	50	2
		77-09-10		Electric trim switch	51	2
		77-13-21		Prevent landing gear collapse	54	2
		78-12-07		Fuel selector valve	66	2
		79-12-00		Fuel selector valve	86	2
		79-20-10		Incorporation of Piper Kit 763893	91	2
		82-23-01	R1	Placard near flap actuator	149	2
		83-10-01		Water and fuel system inspection	167	2
		83-19-03		Lower spar cap inspection	151	2
		85-02-05		Piper P/N 81990-02 placard instln.	154	2
PA-31	A2SO	67-25-06		Oil cooler hoses	39	1
		68-13-01		Electrical wire arcing	43	1
		68-20-04		Elevator torque tube	43	1
		69-06-04		Elevator friction system	44	1
		69-11-05		Stall strips	44	1
		69-13-04		Landing gear warning	46	1
		70-22-05		Electrical system modification	50	1
		70-26-06		Cracks in elevator and rudder spar	53	1
		71-01-04		Toxic fumes from battery	1	2
		71-12-05		Electric trim switch mod.	3	2
		74-26-04		Explosion hazards	27	2
		74-26-10		Shutting down engine	28	2
		75-09-10		Push-pull tube end fittings	31	2
		75-26-18		Landing gear selector cable	36	2
		76-04-11		Loose bolts	38	2
		77-01-04		Horizontal stabilizer	48	2
		77-03-03		Aircraft data plate	48	2
		77-07-03		Electrical terminals	50	2
		77-08-02		Electrical short	50	2
		77-09-10		Electric trim switch	51	2
		77-12-02		Elevator balance weights	54	2
		77-14-14		Skin deformation & loose/missing rivets.	55	2
		77-19-06		Aileron cables	55	2
		77-24-01		Stabilizers and fins	59	2
		78-01-02		Elevator bungee	60	2
		78-05-05		Cabin door latch	61	2
		78-08-10		Fuel selector lever	62	2
		79-12-02		Elevator surface travel	85	2
		79-14-02		Control wheel shaft stud	89	2
		79-20-07		Lighter circuit breaker	91	2
		80-14-06		Wing attachments	101	2
		80-17-02		Elevator balance weights	103	2
		80-17-06		Placards	103	2
		80-18-10		Fuel selector valves	107	2
		80-20-04		Engine baffle seals	111	2
		80-22-04		Fuselage station bulkhead	119	2
		80-26-05		MLG door hinges	121	2
		81-11-04		Nose wheel	125	2
		81-15-04	R1	Horizontal stabilizer rear spar	127	2
		82-14-05	R1	Turbocharger tailpipe instln. - Rev. AN	06-00	2
		82-27-13	R2	Flap extension system	161	2
		85-08-05		Strut housing inspection ..... Corr. AN	06-06	2
PA-31-300	A2SO	68-13-01		Electrical wire arcing	42	1
		68-20-04		Elevator torque tube	43	1
		69-06-04		Elevator friction system	44	1
		69-11-05		Stall strips	44	1
		69-13-04		Landing gear warning	46	1
		70-22-05		Electrical system modification	50	1
		70-26-06		Cracks in elevator and rudder spar	53	1
		71-01-04		Toxic fumes from battery	1	2
		71-12-05		Electric trim switch mod.	3	2
		74-26-04		Explosion hazards	27	2
		74-26-10		Shutting down engine	28	2
		75-09-10		Push-pull tube end fittings	31	2
		76-04-11		Loose bolts	36	2
		77-08-02		Electrical short	50	2
		77-09-10		Electric trim switch	51	2
		77-12-02		Elevator balance weights	54	2
		77-19-06		Aileron cables	55	2
		78-05-05		Cabin door latch	61	2
		79-12-02		Elevator surface travel	85	2
		79-14-02		Control wheel shaft stud	89	2
		80-14-06		Wing attachments	101	2
		80-18-10		Fuel selector valves	107	2
		80-20-04		Engine baffle seals	111	2
		80-22-04		Fuselage station bulkhead	119	2
		80-26-05		MLG door hinges	121	2

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		82-27-13	R2	Flap extension system	143	2
		85-09-05		Strut housing inspection ..... Cor. AW 86-06		2
PA-31-310 Listed under PA-31						
PA-31-325	A3SO	75-26-18		Landing gear selector cable	36	2
		76-04-11		Loose bolts	38	2
		76-15-07		Elevator balance weights	42	2
		77-01-06		Horizontal stabilizer	48	2
		77-07-03		Electrical terminals	50	2
		77-08-02		Electrical short	50	2
		77-10-09		Vibration effects	51	2
		77-14-14		Skin deformation & loose/missing rivets.	55	2
		77-19-06		Aileron cables	55	2
		77-24-01		Stabilizers and fins	59	2
		78-01-02		Elevator bungee	60	2
		78-05-05		Cabin door latch	61	2
		78-10-10		Fuel selector lever	62	2
		78-26-11		Elevator surface travel	85	2
		79-12-02		Control wheel shaft stud	89	2
		79-14-02		Lighter circuit breaker	91	2
		79-20-07		Air door catch assy attach	98	2
		80-13-06		Wing attachments	101	2
		80-14-06		Elevator balance weights	103	2
		80-17-02		Placards	103	2
		80-17-06		Fuel selector valves	107	2
		80-18-10		Engine baffle seals	111	2
		80-20-04		Fuselage station bulkhead	118	2
		80-22-04		NLG door hinges	121	2
		80-26-05		Nose wheel	125	2
		81-11-04		Horizontal stabilizer rear spar	127	2
		81-15-04	R1	Turbocharger tailpipe instln. Rev. AW 86-06		2
		82-16-05	R1	Flap extension system	143	2
		82-27-13	R2	Strut housing inspection ..... Cor. AW 86-06		2
		85-09-05				
PA-31-350	A3SO	74-26-10		Shutting down engine	28	2
		75-08-04		Forward rudder control cable	30	2
		75-09-10		Push-pull rube end fittings	31	2
		75-26-18		Landing gear selector cable	36	2
		76-06-10		Toxic fumes	37	2
		76-04-11		Loose bolts	38	2
		76-15-07		Elevator balance weights	42	2
		77-01-06		Horizontal stabilizer	48	2
		77-07-03		Electrical terminals	50	2
		77-08-02		Electrical short	50	2
		77-09-10		Electric trim switch	51	2
		77-14-14		Skin deformation & loose/missing rivets.	55	2
		77-19-06		Aileron cables	55	2
		77-24-01		Stabilizers and fins	59	2
		78-01-02		Elevator bungee	60	2
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ROBINSON HELICOPTER COMPANY

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		84-18-04		Main rotor gearbox	6	2

ROCKWELL INTERNATIONAL - COMMANDER AIRCRAFT DIV.
(See AYRES CORP., GULFSTREAM AMERICAN)
(Formerly AERO COMMANDER, NORTH AMERICAN ROCKWELL)

ROLLADEN SCHNEIDER GMG

LS1-f	G35EU	78-23-02		Tow release mechanism	1	2
		82-17-02		Airspeed indicator	1	2
LS3	G37EU	78-23-02		Tow release mechanism	1	2
		82-17-02		Airspeed indicator	1	2
LS 4	G45EU	85-03-02		Air brake	2	2
LS 4a	G45EU	85-03-02		Air brake	2	2

RYAN AERONAUTICAL CO.
(See also TECHNECH ENTERPRISE)

ST-3KR	A-749	46-06-01		Front fin spar	1	1
		51-28-03		Fuel valve placard	1	1

SCHEIBE-FLUGZEUGBAU-G.m.b.H.

L-Spatz 55	7G2	64-15-06		Outer aileron hinge brackets	1	1
Bergfalke-II/55	7G9	67-06-05		Aileron bell crank	1	1
		75-26-14		Elevator control	1	2
Bergfalke-III	7G9	67-06-05		Aileron bell crank	1	1
		75-26-14		Elevator control	1	2
SF 26A	G4IN	76-06-03		Lateral control	1	2
SF 27A	G11EU	75-23-01		Elevator actuating lever	1	2

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AIRCRAFT MAKE & MODEL	TC NO.	AD NUMBER*	SUBJECT	PAGE NO.**	BOOK NO.
SCHEMPP-HIRTH KG.					
(See GROF-WERKE)					
Cirrus	G19EU	70-02-10	Elevator aileron airbrake system	1	1
Standard Cirrus	G23EU	76-09-10	Aileron control system	1	2
		76-11-03	Tow release mechanism	1	2
		83-16-02	Air brake drive lever	1	2
SCHLEICHER, ALEXANDER					
Ka 6	7G1	64-07-05	Elevator control push rods	1	1
		64-09-06	Airbrake push pull rod	1	1
		64-14-06	Horizontal stabilizer fittings	2	1
		75-23-03	Elevator and control	1	2
Ka 6 B	7G1	75-23-03	Elevator and control	1	2
Ka 6 BR	7G1	75-23-03	Elevator and control	1	2
Ka 6 C	7G1	75-23-03	Elevator and control	1	2
Ka 6 CR	7G1	75-23-03	Elevator and control	1	2
Ka 6 E	7G1	69-05-06	Thermos bottle bracket	3	1
K7	7G3	61-13-03	Fuselage modification	1	1
		64-07-05	Elevator control push rods	1	1
		75-23-03	Elevator and control	1	2
Ka2E	7G3	64-07-05	Elevator control push rods	1	1
		64-14-06	Horizontal stabilizer fittings	2	1
		75-23-03	Elevator and control	1	2
K8	7G4	64-07-05	Elevator control push rods	1	1
		64-09-06	Airbrake push pull rod	1	1
		71-19-01	Airbrake bearing bracket failure	1	2
		75-23-03	Elevator and control	1	2
Rhonlerche II	7G6	76-15-02	Torsion tube mount area	2	2
		77-25-04	Clevis pins	2	2
AS-K13	G15EU	68-25-05	Wheel brake cable	2	1
		69-05-04	Landing gear buffer plate	2	1
		75-23-03	Elevator and control	1	2
ASW-15	G22EU	75-17-11	Improper fin-rudder nose clearance	1	2
		84-20-01	Bellcrank inspection	4	2
ASW-15B	G22EU	84-20-01	Bellcrank inspection	4	2
ASW-17	G30EU	76-07-11	Water ballast system control	2	2
ASW-19	G36EU	84-13-04	Horizontal tailplane flutter	3	2
ASW-19B	G36EU	84-13-04	Horizontal tailplane flutter	3	2
ASK 21	G47EU	84-23-03	Placard and AFM changes	4	2
		85-06-07	Main wheel box	5	2
SCHWEIZER AIRCRAFT CORP.					
SGS 1-23H	1G1	71-17-09	Loose rudder fittings	1	2
SGS 2-33 Series	G2EA	76-13-11	Aft fuselage longerons	3	2
		77-23-10	Spar web and bolts	5	2
SGU 2-22 Series	G1B	76-13-11	Aft fuselage longerons	3	2
G-164 Series	1A16	63-22-02	Throttle control pivot bolt	2	1
		66-01-02	Propeller cone and spacer sets	2	1
G-164	1A16	62-08-07	Aileron control cable modification	1	1
		63-01-01	Engine mount washers	1	1
		63-22-01	Spray pump fan blades	2	1
		66-27-06	Right-hand elevator torque tubes	3	1
		67-09-04	Control surface lock	3	1
		67-29-04	Elevator forward pushrod	4	1
		75-14-04	Rudder cables	2	2
		76-13-10	Landing gear strut	2	2
		76-21-03	Main landing gear struts	4	2
		78-08-09	Rudder assembly	5	2
		78-23-11	Aileron balance cables	6	2
		78-26-03	Wing fittings corrosion detection	6	2
G-164A	1A16	66-27-06	Right-hand elevator torque tubes	3	1
		67-09-04	Control surface lock	3	1

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AIRCRAFT MAKE & MODEL	TC NO.	AD NUMBER*		SUBJECT	PAGE NO.**	BOOK NO.
		72-02-02		Fuel line fitting leakage	1	2
		73-19-10		Elevator control horn	1	2
		75-14-04		Rudder cables	2	2
		76-13-10		Landing gear strut	2	2
		77-13-04		Placard-brake warning	4	2
		77-19-05		Flying wire terminals	4	2
		78-08-09		Rudder assembly	5	2
		78-23-11		Aileron balance cables	6	2
		78-26-03		Wing fittings corrosion detection	6	2
		82-07-04		Fuel shutoff valve modification	7	2
G-164B	1A16	73-19-10		Elevator control horn	1	2
		75-14-04		Rudder cables	2	2
		77-13-04		Placard-brake warning	4	2
		77-19-05		Flying wire terminals	4	2
		78-08-09		Rudder assembly	5	2
		78-23-11		Aileron balance cables	6	2
		78-26-03		Wing fittings corrosion detection	6	2
		82-07-04		Fuel shutoff valve modification	7	2
		82-13-06		Aileron bellcrank inspection	8	2
G-164C	1A16	78-23-11		Aileron balance cables	6	2
		82-07-04		Fuel shutoff valve modification	7	2
		82-13-06		Aileron bellcrank inspection	8	2
G164D	1A16	82-07-04		Fuel shutoff valve modification	7	2
		82-13-06		Aileron bellcrank inspection	8	2
SCOTTISH AVIATION						
(See BRITISH AEROSPACE CORP.)						
SEMCO BALLOON						
(See EAGLE BALLOONS, LTD.)						
SHORT BROTHERS, LTD.						
SC-7 Series 2	A15EU	69-26-01		Flap shroud attachment lugs	1	1
SC-7 Series 3	A15EU	69-26-01		Flap shroud attachment lugs	1	1
		70-15-05		Altimeter stand-by correction label	1	1
		70-15-12		Engine drain line	1	1
		77-24-02		Flap support structure	1	2
		81-06-03		Aileron servo control cable	1	2
		83-06-08		MLG brake flange	2	2
		83-07-04	R1	Flight control system	3	2
		83-07-08		Ground/air lever mechanism	3	2
		83-07-16		Vertical fin	4	2
		83-07-21		Cargo door locking pin	4	2
		83-14-01		Flap attachments	5	2
SIAI MARCHETTI, S.P.A.						
S.205 Series	A9EU	66-29-03		Rear spar web	1	1
		72-03-02		Wing front spar attachment	1	2
		72-14-02		Fuel or fumes in wings or cabin	2	2
		73-11-07		Frayed aileron control cables	4	2
		73-11-08		Landing gear link pins and bolts	4	2
		76-09-06		Aileron control	8	2
		84-16-02		MLG long arm cross-member insp	15	2
S.205-18/F	A9EU	71-17-04	R1	Cracks in main gear axle	1	2
		75-17-23	R2	Landing gear operating mech.	5	2
		75-22-18		Nose landing gear	7	2
		83-08-07		Propeller control	13	2
		83-23-02	R1	Flap hinges attach brackets	14	2
S.205-18/R	A9EU	71-17-04	R1	Cracks in main gear axle	1	2
		72-16-04		Cracks in nose gear drag link	3	2
		73-11-04		Main landing gear eye bolt seizure	3	2
		75-17-23	R2	Landing gear operating mech.	5	2
		75-17-24		Landing gear actuator brackets	6	2
		75-22-20		Landing gear	8	2
		76-23-01		Landing gear control switch	9	2
		83-08-07		Propeller control	13	2
		83-23-02	R1	Flap hinges attach brackets	14	2
S.205-20/F	A9EU	71-17-04	R1	Cracks in main gear axle	1	2
		75-17-23	R2	Landing gear operating mech.	5	2
		75-22-18		Nose landing gear	7	2
		83-07-10		Butterfly valve attachment	12	2
		83-08-07		Propeller control	13	2
		83-23-02	R1	Flap hinges attach brackets	14	2
S.205-20/R	A9EU	71-17-04	R1	Cracks in main gear axle	1	2

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		72-16-04		Cracks in nose gear drag link	3	2
		73-11-04		Main landing gear eye bolt seizure	3	2
		75-17-23	R2	Landing gear operating mech.	5	2
		75-17-24		Landing gear actuator brackets	6	2
		75-22-20		Landing gear	8	2
		76-23-01		Landing gear control switch	9	2
		83-07-10		Butterfly valve attachment	12	2
		83-08-07		Propeller control	13	2
		83-23-02	R1	Flap hinges attach brackets	14	2
S.205/22R	A9EU	68-08-06		Nose gear brace	1	1
		68-12-01		Sealant at firewall and nose wheel	1	1
		68-16-02		Gear position indicator switch	2	1
		68-19-01		Suction gage markings	2	1
		68-19-03		Cracks in lower fuselage	2	1
		69-19-07		Engine and elevator controls	3	1
		70-20-01		Flap locking mechanism	3	1
		71-17-04	R1	Cracks in main gear axle	1	2
		72-16-04		Cracks in nose gear drag link	3	2
		73-11-04		Main landing gear eye bolt seizure	3	2
		75-17-23	R2	Landing gear operating mech.	5	2
		75-17-24		Landing gear actuator brackets	6	2
		75-22-20		Landing gear	8	2
		76-23-01		Landing gear control switch	9	2
		83-07-20		Exhaust system	13	2
		83-23-02	R1	Flap hinges attach brackets	14	2
S.208 Series	A9EU	72-03-02		Wing front spar attachment	1	2
		72-14-02		Fuel or fumes in wings or cabin	2	2
		73-11-07		Frayed aileron control cables	6	2
		75-17-24		Landing gear actuator brackets	6	2
		75-22-20		Landing gear	8	2
		76-09-06		Aileron control	8	2
		84-16-02		MLG longarm cross-member insp	15	2
S.208	A9EU	71-17-04	R1	Cracks in main gear axle	1	2
		75-17-23	R2	Landing gear operating mechanism	5	2
		76-23-01		Landing gear control switch	9	2
		83-08-07		Propeller control	13	2
		83-23-02	R1	Flap hinges attach brackets	14	2
S.208A	A9EU	71-17-04	R1	Cracks in main gear axle	1	2
		75-17-23	R2	Landing gear operating mech.	5	2
		76-23-01		Landing gear control switch	9	2
		83-08-07		Propeller control	13	2
		83-23-02	R1	Flap hinges attach brackets	14	2
		84-16-02		MLG longarm cross-member insp.	15	2
F.260	A10EU	75-17-06		Emergency landing gear control	4	2
		75-17-19		Landing gear	5	2
		75-21-01		Landing gear	6	2
		75-22-19		Main landing gear	7	2
		76-23-01		Landing gear control switch	9	2
		77-14-18		Airplane control	9	2
		83-06-05	R1	Nose-gear barrel	11	2
		83-06-10		Prop. governor relief valve	11	2
		83-08-07		Propeller control	13	2
F.260B	A10EU	75-17-06		Emergency landing gear control	4	2
		75-21-01		Landing gear	6	2
		75-22-19		Main landing gear	7	2
		76-23-01		Landing gear control switch	9	2
		77-14-18		Airplane control	9	2
		83-06-05	R1	Nose-gear barrel	11	2
		83-06-10		Prop. governor relief valve	11	2
		83-08-07		Propeller control	13	2
F.260C	A10EU	83-06-05	R1	Nose-gear barrel	11	2
		83-06-10		Prop. governor relief valve	11	2
SF260	--	83-06-05	R1	Nose-gear barrel	11	2
SIKORSKY AIRCRAFT, DIVISION OF UNITED AIRCRAFT CORP.						
R4B	LTC-7	47-35-01		Main rotor links rework	1	1
		47-35-02		Tail rotor gearbox brace	2	1
YR-6A, R-6A, HOS-1	LTC 29	47-51-14		Pinion and ring gear inspection	3	1
HRS/H-19	HR1SO	74-19-04		Applicability to all HRS/H19 series ...	3	2
HRS-1/CH-19	HR1SO	70-09-05		Main rotor shaft	18	1
		75-04-02		Main rotor spindles	3	2
HRS-3/H-19B	HR1SO	70-09-05		Main rotor shaft	18	1
		75-04-02		Main rotor spindles	3	2

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B-19A	3R1SO	75-04-02		Main rotor spindles	3	2
B-19E	3R1SO	75-04-02		Main rotor spindles	3	2
B-19L	3R1SO	70-09-05		Main rotor shaft	18	1
		75-04-02		Main rotor spindles	3	2
B-19G	3R1SO	70-09-05		Main rotor shaft	18	1
		75-04-02		Main rotor spindles	3	2
CH-19	3R1SO	75-04-02		Main rotor spindles	3	2
S-51	H-2	47-32-15		Control system chain and sprockets	1	1
		47-50-08		Vertical hinge pins	3	1
		48-17-03		Planet pinion shafts wear	4	1
		48-18-02		Bevel drive gear splines	5	1
		50-08-01		Tail cone mounting longerons	5	1
		51-22-01		Gear shaft replacement	5	1
		51-23-04		Rotor link assemblies	6	1
		56-13-02		Main rotor hub replacement	9	1
		56-16-03		Main rotor blade inspection	9	1
		60-13-04		Rotor shank rod	11	1
		67-29-06		Tail rotor sleeve & tube assy	17	1
S-52-3 (HO5S-1)	1H2	60-19-01		Component lines	12	1
S-55 Series	1H4	54-01-03		Fuel strainer screen	6	1
		54-13-01		Star assembly bolt replacement	6	1
		54-16-01		Main transmission	7	1
		54-19-02		Servo safety clip	8	1
		54-20-02		Support assembly cracks	8	1
		55-25-04		Tail cone skin reinforcements	8	1
		56-16-03		Main rotor blade inspection	9	1
		56-23-03		Horizontal hinge pin assembly	10	1
		60-13-04		Rotor shank rod	11	1
		63-05-02		Main rotor blades	14	1
		65-08-02		Main rotor blades	15	1
		66-04-03		Main rotor blades	16	1
		67-17-06		Pylon lower ring	17	1
		67-29-07		Azimuth control rod assembly	18	1
		70-12-04		Main rotor shaft cracks	19	1
		73-16-01		Engine turbine failure	1	2
		75-22-12		Inflight power loss	6	2
S-55	1H4	71-26-03		Servo support bracket	1	2
		75-04-02		Main rotor spindles	3	2
S-55B (HO4S-3G, UH-19D, H-19D5, UH-19B)	1H4	70-12-04		Main rotor shaft cracks	19	1
		75-04-02		Main rotor spindles	3	2
		75-22-12		Inflight power loss	6	2
S-55C	1H4	70-12-04		Main rotor shaft cracks	19	1
		75-04-02		Main rotor spindles	3	2
		75-22-12		Inflight power loss	6	2
S-58 Series (HSS-1, HUS-1, H-34, CH-34, HH-34, SH-34, UH-34, VH-34 Series)	1H11	57-19-02		Hydromechanical clutch rollers	10	1
		59-16-04		Damper trunnion bolt	10	1
		60-17-03		Main rotor blade spar	11	1
		60-24-04		Electrical cable	13	1
		61-01-03		Input bevel gear	13	1
		64-02-06		Pylon and tail cone fittings	15	1
		66-19-04		Tail rotor blades	16	1
		74-15-06		Tail rotor gear box	1	2
		75-07-07		Emergency hatch handles	3	2
		75-07-08		Tail assembly	5	2
		75-13-01		Main rotor assembly	6	2
		82-01-07		Horizontal hinge pins	16	2
		85-17-08		Main rotor head bolts	25	2
S-62A	1H13	63-17-06		Input shaft helical gears	14	1
		65-08-02		Main rotor blades	15	1
		66-04-03		Main rotor blades	16	1
		70-12-04		Main rotor shaft cracks	19	1
		71-26-03		Servo support bracket	1	2
		75-04-02		Main rotor spindles	3	2
		76-06-01		Hydraulic pumps	7	2
		81-06-53	R1	Rotor brake discs	11	2
S-76A	S1HE	79-25-08		Hydraulic pumps	8	2
		80-14-16	R1	Main rotor blade spindle	9	2
		80-22-55	R4	Main rotor damper rods	10	2
		81-07-51	R1	Main rotor spindles	12	2
		81-09-07		Main rotor blades	14	2
		81-21-04		Main rotor scissors assembly	14	2
		81-23-04		Main gearbox overhaul	15	2
		82-06-08		DC generators	16	2

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		82-06-51		Main gearbox shaft and spur pinions ...	16	2
		82-17-03		Rotor brake assembly	17	2
		82-25-01		R & L MLG positioning rod ends	18	2
		83-17-07	R1	Forward spar web/doubler	18	2
		84-06-02		Tail rotor blades	20	2
		84-08-01		Shaft bearing assembly	20	2
		84-10-02		Main rotor blade spar	21	2
		84-15-04		Tail rotor controls	22	2
		84-17-01		Main rotor pitch horn	2	2
		84-19-51	R1	Center firewall supports	22	2
		84-24-02		Engine turbine wheel	23	2
		85-15-06		Tail rotor drive shaft bearings ..... BW 86-06		2
		86-09-11		Main & nose landing gear ..... BW 86-09		2
SILVAIRE						
(See LUSCOMBE)						
S. L. INDUSTRIES CORP.						
(Formerly AERO COMMANDER, NORTH AMERICAN ROCKWELL, CALLAIR, VOLAIRE, INTERMOUNTAIN)						
10	1A21	68-12-05		Rudder control system	1	1
10A	1A21	68-12-05		Rudder control system	1	1
100	1A21	68-12-05		Rudder control system	1	1
		68-21-02		Aileron cable assembly	1	1
		68-23-03		Fuel octane placard	1	1
		73-01-01		Exhaust outlet blockage	1	2
100A	1A21	68-12-05		Rudder control system	1	1
100-180	1A21	68-21-02		Aileron cable assembly	1	1
		68-23-03		Fuel octane placard	1	1
		73-01-01		exhaust outlet blockage	1	2
B-1	A7WE, A8WE	72-21-01		Landing gear shock strut	1	2
		74-02-02		Front wing spar failure	2	2
		79-16-04		Wing rear spars	3	2
B-1A	A7WE, A8WE	72-21-01		Landing gear shock strut	1	2
		74-02-02		Front wing spar failure	2	2
		79-16-04		Wing rear spars	3	2
SLINGSBY SAILPLANE, LTD.						
(See also VICKERS-SLINGSBY)						
T.51 Series	G5EU	73-17-02		Corrosion of wing spars	1	2
T.53.B	G17EU	69-03-04		Elevator control bracket	1	1
		69-11-07		Fuselage center section	1	1
		69-19-04		Glider trim	1	1
		85-12-10		Placard - welded frame/brackets	3	2
T.59.D	G27EU	73-13-05		Aileron unbalance condition	1	2
		75-17-10		Elevator actuator bracket	1	2
		75-17-12		Dive brake retraction failure	2	3
		75-23-06		Rudder cable	2	2
SMITH AEROSTAR						
(See PIPER AIRCRAFT)						
(Formerly AEROSTAR)						
S.N.I.A.S.						
(See AEROSPATIALE)						
(Formerly SUD AVIATION)						
SNOW AERONAUTICAL CO.						
(See AYRES CORPORATION)						
S.O.C.A.T.A. - GROUPE AEROSPATIALE						
(See also MORANE-SAULNIER)						
MS.880E	7A14	70-17-04		Leaks in fuel system	1	1
		70-17-05		Battery box modification	1	1
		70-17-06		Firewall sealant	1	1
		70-20-02		Air speed cover glass	1	1
		71-15-03		Generator system cables	1	2
		75-17-18		Aileron control	1	2
		75-17-22		Front horizontal stabilizer	1	2
		75-21-04		Batteries	2	2

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		75-22-15	Floor and control stick	2	2
		76-11-02	Engine cowl locks	3	2
MS.885	7A14	70-17-04	Leaks in fuel system	1	1
		70-17-05	Battery box modification	1	1
		70-17-06	Firewall sealant	1	1
		70-20-02	Air speed cover glass	1	1
		75-17-22	Front horisontal stabilizer	1	2
		75-22-15	Floor and control stick	2	2
MS.892A-150	7A14	75-22-15	Floor and control stick	2	2
		75-26-09	Elevator bellcrank	2	2
		76-11-02	Engine cowl locks	3	2
		76-24-04	Oil return pipes	4	2
		76-26-03	Carburetor icing	4	2
		77-15-06	Engine mounts	4	2
MS.892E-150	7A14	75-17-18	Aileron control	1	2
		76-11-02	Engine cowl locks	3	2
		76-24-04	Oil return pipes	4	2
		76-26-03	Carburetor icing	4	2
		77-15-06	Engine mounts	4	2
MS.893A	7A14	75-22-15	Floor and control stick	2	2
		75-26-09	Elevator bellcrank	2	2
		76-11-02	Engine cowl locks	3	2
		76-24-04	Oil return pipes	4	2
		76-26-03	Carburetor icing	4	2
		77-15-06	Engine mounts	4	2
MS.893E	7A14	75-17-18	Aileron control	1	2
		76-11-02	Engine cowl locks	3	2
		76-24-04	Oil return pipes	4	2
		76-26-03	Carburetor icing	4	2
		77-15-06	Engine mounts	4	2
MS.894A	7A14	70-17-04	Leaks in fuel system	1	1
		70-17-05	Battery box modification	1	1
		70-17-06	Firewall sealant	1	1
		70-20-02	Air speed cover glass	1	1
		71-15-03	Generator system cables	1	2
		71-16-03	Fuel line replacement	1	2
		71-16-07	Carburetor heating system	1	2
		75-22-15	Floor and control stick	2	2
		75-26-09	Elevator bellcrank	2	2
		76-11-02	Engine cowl locks	3	2
		76-26-03	Carburetor icing	4	2
MS.894E	7A14	75-17-18	Aileron control	1	2
		76-11-02	Engine cowl locks	3	2
		76-26-03	Carburetor icing	4	2
100S	7A14	75-17-18	Aileron control	1	2
150T	7A14	77-15-06	Engine mounts	4	2
150ST	7A14	77-15-06	Engine mounts	4	2
SOCIETE C.A.P.M.A.M.					
(See also AER-PEGASO)					
M.200	G 14EU	69-24-01	Horisontal stabilizer	1	1
		75-23-02	Aileron spars	1	2
STAPT & PLUG GmbH					
S101 "Salto"	G2SEU	76-10-04	Cockpit canopy fastening mechanism	1	2
STINSON DIVISION, CONSOLIDATED VULTEE AIRCRAFT CORP.					
(See UNIVAIR AIRCRAFT for Stinson 108 Series)					
A	ATC556	46-06-05	Wing attach fittings	1	1
HW-5	A-709	46-39-01	Oleo truss wear	1	1
10	A-709	46-39-01	Oleo truss wear	1	1
L-5 Series	A-764	46-31-02	Torque tube aft of rear seat	1	1
		47-50-04	Elevator push-pull tube	1	1
L-5B	A-764	46-31-01	Hinged seat back	1	1
L-5C	A-764	46-31-01	Hinged seat back	1	1
L-5E	A-764	46-31-01	Hinged seat back	1	1

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L-5B-1	A-764	46-31-01	Hinged seat back	1	1
L-5G	A-764	46-31-01	Hinged seat back	1	1
STOL AIRCRAFT CORPORATION					
UC-1	A6EA	53-23-03	Lift strut fittings	1	1
STOL AMPHIBIAN CORP.					
(Republic) RC-3	A-769	47-21-11	Firewall stud bushings	1	1
		47-21-12	"No Smoking" placard	1	1
		47-21-13	Elevator push-pull tube rivets	1	1
		47-21-14	Elevator control cable guide	1	1
		47-21-15	Radio filters	1	1
		47-21-16	Fuel strainer drain	2	1
		47-21-17	Backfire screen	2	1
		47-21-18	Mixture control support bracket	2	1
		47-21-19	Control clamps or brass ferrules	2	1
		47-21-20	Oil pressure gage line restrictor	3	1
		47-21-21	Tip float struts	3	1
		47-21-22	Engine mounting bolt lock washers	3	1
		47-21-23	Engine cooling fan	3	1
		47-47-10	Float strut rework	4	1
		47-47-11	Propeller reverse control spring	4	1
		47-47-12	Carburetor antiswirl vanes	4	1
		47-47-13	Hartzell propeller hub counterweight	4	1
		47-47-14	Oil screen inspection	5	1
		47-51-08	Tailwheel horns	5	1
		48-01-03	Elevator trim tab bushing	5	1
		48-11-04	Hydraulic pump handle	5	1
		49-03-01	AC fuel pump	6	1
		49-31-02	Fuel placard	6	1
		53-23-03	Strut fitting corrosion	6	1
SUD AVIATION (See S.N.I.A.S.)					
SUPERIOR AIRCRAFT CO.					
Culver LCA	A-730	46-04-01	Landing gear throttle stop	1	1
		46-04-02	Carburetor float needle	1	1
LFA	A-730	46-04-01	Landing gear throttle stop	1	1
(Culver) V	A-778	47-02-07	Landing gear retraction adjustment	1	1
		47-02-08	Firewall cover plate	1	1
		47-02-09	Cabin heater valve box	1	1
		47-25-01	Fuel system rework	2	1
		47-25-02	Wing fillets	2	1
		47-25-03	Nose gear drag link	2	1
		47-25-04	Compass illumination	2	1
		47-25-05	Nose-main gear interconnection tube	2	1
		50-04-02	Landing gear retraction motor rework	2	1
		50-47-02	Sensenich propeller blades	3	1
		60-24-05	Fuel cells	3	1
V2	A-778	47-02-07	Landing gear retraction adjustment	1	1
		47-02-08	Firewall cover plate	1	1
		47-02-09	Cabin heater valve box	1	1
		47-25-01	Fuel system rework	2	1
		47-25-02	Wing fillets	2	1
		47-25-05	Nose-main gear interconnection tube	2	1
		50-04-02	Landing gear retraction motor rework	2	1
		50-47-02	Sensenich propeller blades	3	1
		60-24-05	Fuel cells	3	1
SWEARINGEN AVIATION CORP. (See FAIRCHILD AIRCRAFT)					
SWIFT MUSEUM FOUNDATION, INC. (Formerly UNIVERSAL AIRCRAFT)					
Aircraft equipped with Hopper Model Aeromatic H200 Propellers	---	47-50-13	Universal Hopper Propellers	3	1
(Globe) GC-1A	A-766	46-23-04	Addition of rivets in wing skin	1	1
		46-33-02	Fuselage bulkhead flange stiffener	1	1
		46-42-01	Cabin heater valve replacement	1	1
		47-06-01	Landing gear retraction adjustment	1	1
		47-06-02	Landing gear retraction placard	2	1
		47-06-03	Elevator cable collars	2	1
		47-06-04	Landing gear washers	2	1
		47-06-05	Battery vent plugs	2	1
		47-06-06	Engine breather line	3	1

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		47-25-04	Carburetor flexible air duct	3	1
		47-25-07	Oil radiator outlet sleeve	3	1
		48-28-01	Fuselage bulkhead rework	3	1
		51-02-02	Asbestos cloth removal	4	1
		51-08-03	Stabilizer spar attachment	4	1
		51-10-05	Fuselage reinforcement rework	4	1
		51-11-04	Landing gear rework	5	1
		56-16-04	Landing gear torque knees	5	1
		58-10-03	Landing gear stop ring	6	1
GC-1A	A-766	46-23-04	Addition of rivets in wing skin	1	1
		46-33-02	Fuselage bulkhead flange stiffener	1	1
		46-42-01	Cabin heater valve replacement	1	1
		47-06-01	Landing gear retraction adjustment	1	1
		47-06-02	Landing gear retraction placard	2	1
		47-06-03	Elevator cable collars	2	1
		47-06-04	Landing gear washers	2	1
		47-06-05	Battery vent plugs	2	1
		47-06-06	Engine breather line	3	1
		47-25-06	Carburetor flexible air duct	3	1
		47-25-07	Oil radiator outlet sleeve	3	1
		48-28-01	Fuselage bulkhead rework	3	1
		51-02-02	Asbestos cloth removal	4	1
		51-08-03	Stabilizer spar attachment	4	1
		51-10-05	Fuselage reinforcement rework	4	1
		51-11-04	Landing gear rework	5	1
		56-16-04	Landing gear torque knees	5	1
		58-10-03	Landing gear stop ring	6	1
		64-05-04	Engine mount	6	1
AIRCONCONY SARLAD DOSWIADCZALNY					
SZD-24-4A "Foka-4"	G10EU	75-16-17	Wing, fuselage and tailplane	1	2
TAYLORCRAFT AVIATION CORP.					
(See TAYLORCRAFT, INC. for BF, BL & DC Series)					
All Series below S/N 13001	---	51-09-03	Fuel shutoff valve clip	1	1
BC Series	A-696	47-16-03	Wing strut fittings	1	1
		50-41-01	Elevator horn bolt	1	1
BC-65	A-696	47-13-02	Fuel hose	1	1
BC9-65	A-696	47-13-02	Fuel hose	1	1
BC12-65	A-696	47-13-02	Fuel hose	1	1
BC812-65	A-696	47-13-02	Fuel hose	1	1
BC12-E	A-696	47-13-02	Fuel hose	1	1
		78-20-11	Aileron control malfunction	1	2
BC812-D	A-696	47-13-02	Fuel hose	1	1
BC812-D1	A-696	47-13-02	Fuel hose	1	1
F19	1A9	75-18-05	Engine mount bolts	1	2
		78-20-11	Aileron control malfunction	1	2
		79-08-04	Charging circuit fire hazard	2	2
TAYLORCRAFT, INC.					
(See TAYLORCRAFT AVIATION CORP. for BC Series)					
All Series below S/N 13001	---	51-09-03	Fuel shutoff valve clip	1	1
BF Series	A-699	47-16-03	Wing strut fittings	1	1
		50-41-01	Elevator horn bolt	1	1
BL Series	A-700	47-16-03	Wing strut fittings	1	1
		50-41-01	Elevator horn bolt	1	1
TEMCO AIRCRAFT CORP.					
(See MULTITECH ENGINEERING CORP. for D-16 and D-16A)					
Luscombe 11A	A-804	49-45-01	Trim tab horn attachment	1	1
		49-45-01	Landing gear bulkhead reinforcement	1	1
		51-21-03	Rudder bellcrank	2	1
TEMCO AVIATION, INC.					
Fleet Mod I OD-13D	H2GL	80-21-09 R1	Tail rotor pitch link	1	2
		81-04-03	Tail rotor drive assembly	1	2
		86-06-08	Main rotor blade grips ..... Cor. AD 86-07		2
TEXAS HELICOPTER CORPORATION					
OH-13E, OH-13S	H7SW	80-21-09 R1	Tail rotor pitch link	1	2
		81-04-03	Tail rotor drive assembly	1	2

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		65-15-04	Tail rotor blade yoke P/N 74-641-057-9 .....BW 65-26		2
		66-06-08	Main rotor blade grips ..... Cor. BW 66-07		2
J. THOMPSON ENTERPRISE (Formerly NAVION)					
Navion Series	782	47-11-01	Rudder-nose gear steering bellcrank ...	1	1
		47-11-03	Hartzell propeller blade rework	1	1
		47-21-04	Fuel scupper drain line	1	1
		47-21-05	Propeller control friction lock	1	1
		47-21-07	Carburetor air intake scoop filler strip	1	1
		47-21-08	Generator terminal stud insulator	2	1
		47-21-09	Hydraulic system modifications	2	1
		47-21-10	Propeller guide pin dowel	2	1
		47-31-01	Hydraulic cylinder lines	2	1
		47-31-02	Carburetor vapor return line	2	1
		47-31-03	Fuel drain cock	3	1
		48-06-03	Hartzell propeller blade inspection ...	3	1
		48-08-03	Fuel valve control support clip	3	1
		48-29-01	Fuel pump drain	3	1
		49-05-03	Continental engines bearing inserts ...	4	1
		49-09-02	Booster pump rework	4	1
		49-11-01	Carter fuel pump rework	4	1
		49-12-02	Romec fuel pump vent plugs	5	1
		49-28-01	Unsatisfactory spinner	5	1
		50-10-02	Air intake hose	5	1
		51-07-01	Throttle housing	6	1
		52-24-01	Aileron control chain guard	6	1
		52-26-01	Stabilizer spar web	7	1
		53-08-01	Horizontal stabilizer fitting	7	1
		54-18-01	Wing-to-fuselage attachment	8	1
		55-01-01	Fuselage frame cracks	9	1
		56-03-03	Wing rear spar fitting inspection	9	1
		59-06-04	Hydraulic actuating cylinders	10	1
		63-21-05	Main and nose retraction links	11	1
		68-20-06	Rudder horn inspection	11	1
Navion A	782	62-03-03	Landing gear selector valve fitting ...	10	1
		68-20-06	Rudder horn inspection	11	1
		75-05-02	Engine oil	1	2
Navion B	782	52-08-02	Carburetor ducting	6	1
		53-03-01	Hartzell propeller vibration	7	1
		56-27-04	Engine cooling kit removal	10	1
		62-03-03	Landing gear selector valve fitting ...	10	1
		68-20-06	Rudder horn inspection	11	1
Navion D	782	62-03-03	Landing gear selector valve fitting ...	10	1
		64-04-05	Outer wing panel	11	1
		68-20-06	Rudder horn inspection	11	1
Navion E	782	62-03-03	Landing gear selector valve fitting ...	10	1
		64-04-05	Outer wing panel	11	1
		68-20-06	Rudder horn inspection	11	1
Navion F	782	62-03-03	Landing gear selector valve fitting ...	10	1
		64-04-05	Outer wing panel	11	1
		68-20-06	Rudder horn inspection	11	1
Navion G	782	62-03-03	Landing gear selector valve fitting ...	10	1
		64-04-05	Outer wing panel	11	1
		68-20-06	Rudder horn inspection	11	1
Navion H	782	68-20-06	Rudder horn inspection	11	1
JIMM AIRCRAFT CORP.					
Navy N3T	A-2-573	48-32-01	Throttle quadrant reinforcement	1	1
PT-220-C	750	48-32-01	Throttle quadrant reinforcement	1	1
JRITER, E.J. (See PELLANCA, AERONCA, WAGNER)					
KRIVAIR AIRCRAFT CORP.					
Aircraft equipped with Kopper Model Aeromatic D200 Propellers	---	47-50-13	Universal Kopper Propellers	5	1
415 Series	A-718	46-49-01	Nose wheel replacement	2	1
		47-20-03	Fuel pump line alteration	2	1
		52-02-02	Aileron inspection	7	1
		54-26-02	Control cable fraying	8	1
		60-09-02	Nose gear bolts	10	1

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(Erco) 415-C	A-718	46-23-01	Muffler replacement	1	1
		46-23-02	Engine breather line hose	1	1
		46-23-03	Aileron control column fitting	1	1
		46-38-02	Aileron control stop	1	1
		46-38-03	Fuel system elbow fitting	2	1
		46-46-01	Fuselage gas tank overflow line	2	1
		47-20-04	Baggage compartment zipper	3	1
		47-20-05	Belly skin reinforcement	3	1
		47-20-06	Aileron reinforcement	3	1
		47-20-08	Battery box drain	4	1
		47-20-09	Voltage regulator check	4	1
		47-42-20	Control column shaft	4	1
		50-07-01	Elevator trim tab stop	6	1
		52-25-02	Federal nose ski	7	1
		55-22-02	Terneplate fuel tank	8	1
		57-02-01	Rudder horn attachment	9	1
		59-05-04	Rear spar reinforcement	9	1
		59-25-05	Rudder reinforcement	10	1
		67-06-03	Rudder bellcrank	10	1
(Erco) 415-CD	A-718	46-23-01	Muffler replacement	1	1
		46-23-02	Engine breather line hose	1	1
		46-23-03	Aileron control column fitting	1	1
		46-38-02	Aileron control stop	1	1
		46-38-03	Fuel system elbow fitting	2	1
		46-46-01	Fuselage gas tank overflow line	2	1
		47-20-04	Baggage compartment zipper	3	1
		47-20-05	Belly skin reinforcement	3	1
		47-20-06	Aileron reinforcement	3	1
		47-20-08	Battery box drain	4	1
		47-20-09	Voltage regulator check	4	1
		47-42-20	Control column shaft	4	1
		50-07-01	Elevator trim tab st	6	1
		52-25-02	Federal nose ski	7	1
		55-22-02	Terneplate fuel tank	8	1
		57-02-01	Rudder horn attachment	9	1
		59-05-04	Rear spar reinforcement	9	1
		59-25-05	Rudder reinforcement	10	1
		67-06-03	Rudder bellcrank	10	1
(Erco) 415-D	A-787	46-23-01	Muffler replacement	1	1
		46-23-02	Engine breather line hose	1	1
		46-23-03	Aileron control column fitting	1	1
		46-38-02	Aileron control stop	1	1
		46-38-03	Fuel system elbow fitting	2	1
		46-46-01	Fuselage gas tank overflow line	2	1
		47-20-04	Baggage compartment zipper	3	1
		47-20-05	Belly skin reinforcement	3	1
		47-20-06	Aileron reinforcement	3	1
		47-20-08	Battery box drain	4	1
		47-20-09	Voltage regulator check	4	1
		47-42-20	Control column shaft	4	1
		50-07-01	Elevator trim tab stop	6	1
		55-22-02	Terneplate fuel tank	8	1
		57-02-01	Rudder horn attachment	9	1
		59-05-04	Rear spar reinforcement	9	1
		59-25-05	Rudder reinforcement	10	1
		67-06-03	Rudder bellcrank	10	1
(Erco) 415-E	A-787	52-02-02	Aileron inspection	7	1
		54-26-02	Control cable fraying	8	1
		57-02-01	Rudder horn attachment	9	1
		59-05-04	Rear spar reinforcement	9	1
		59-25-05	Rudder reinforcement	10	1
		67-06-03	Rudder bellcrank	10	1
(Erco) 415-G	A-787	52-02-02	Aileron inspection	7	1
		54-26-02	Control cable fraying	8	1
		57-02-01	Rudder horn attachment	9	1
		59-05-04	Rear spar reinforcement	9	1
		59-25-05	Rudder reinforcement	10	1
		67-06-03	Rudder bellcrank	10	1
(Forney) F-1	A-787	57-02-01	Rudder horn attachment	9	1
		59-25-05	Rudder reinforcement	10	1
		60-09-02	Nose gear bolts	10	1
		67-06-03	Rudder bellcrank	10	1
(Forney) F-1A	A-787	59-25-05	Rudder reinforcement	10	1
		67-06-03	Rudder bellcrank	10	1
(Mooney) M-10	A-787	70-17-02	Rudder bellcrank tie rod screws	11	1
(Stinson) 108 Series 108-1	A-767	47-50-11	Ash tray modification	5	1
		47-50-12	Stabilizer attachment fitting	5	1

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		50-17-02	Rudder cable inspection	6	1
		50-25-01	Fuel drip strip	6	1
		73-20-08	(See Univair Propellers)		2
(Stinson) 108-2	A-767	49-16-02	Wing fabric inspection	5	1
(Stinson) 108-3	A-767	49-16-02	Wing fabric inspection	5	1
UNIVERSAL AIRCRAFT INDUSTRIES (See SWIFT MUSEUM)					
VARGA AIRCRAFT CORP.					
2150	4A19	65-12-04	Elevator horn	1	1
		65-28-05	Main landing gear oleos	1	1
		80-02-08	Rudder balance attach bolts	1	2
		80-13-08	Throttle movement	1	2
2150A	4A19	65-12-04	Elevator horn	1	1
		65-28-05	Main landing gear oleos	1	1
		80-02-08	Rudder balance attach bolts	1	2
		80-13-08	Throttle movement	1	2
		81-20-02	Vent tube assembly	1	2
		82-08-04	Elevator horn assembly	2	2
2180	4A19	82-08-04	Elevator horn assembly	2	2
VICKERS-SLINGSBY (See also SLINGSBY SAILPLANE, LTD.)					
T65A (Slingsby)	G42EU	80-15-08	Main wing shear web	1	2
		82-07-01	PLACARD/flap airbrake system	1	2
		84-22-01	Elevator malfunction	2	2
WACO AIRCRAFT CO.					
INF	ATC 345	46-50-01	Fuel line rework	1	1
RNF, NNF	ATC 313	46-50-01	Fuel line rework	1	1
RNF	ATC 311	46-50-01	Fuel line rework	1	1
UKS-7, VKS-7, VKS-7F	ATC 648	47-27-01	Wing inspection (tank area)	1	1
WAGNER, R.H. (Formerly THYTEK)					
65-CA, S-65-CA (Aeronca)	675	47-30-08	Seat modification	1	1
65-LA (Aeronca)	702	47-30-08	Seat modification	1	1
WALZ, ELIZABETH ADAMS					
All models	A1580	72-12-08	Throttle or trigger valves	1	2
WEATHERLY AVIATION CO.					
201B	A10WE	76-12-08	Airplane control	1	2
		76-22-11	Parking brakes	2	2
201C	A10WE	76-12-08	Airplane control	1	2
		76-22-11	Parking brakes	2	2
		80-05-01	Tail cone attach fittings	3	2
WESTLAND HELICOPTERS LIMITED					
30 Series 100	H12EU	84-01-52 R1	Pitch control lever	1	2
		84-12-51	Main rotor blade insp.	1	2
		85-07-06	Main rotor tie-bar pin	1	2
WILCO AVIATION					
UH-1A	H3SO	80-17-09	Main rotor straps	1	2
UH-1B		83-03-03	Tail boom skin joint	1	2
		83-20-01	Tail rotor hub assembly	2	2
		84-18-03 R1	Clevis inspection	3	2
		86-07-07	Universal assembly - main rotor BW 86-07		2
WING AIRCRAFT COMPANY					
D-1	A9WE	82-08-05 R1	Placard - cabin heater	1	2

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AIRCRAFT MAKE & MODEL	TC NO.	AD NUMBER*	SUBJECT	PAGE NO.**	BOOK NO.
MYTHOSNIA SPIRITU					
ROMULEACYNEGO					
PZL M18	A47EU	83-06-07	Yaw axis flight control	1	2
		83-06-09	Inflight engine shut-down prevention ..	1	2
		83-07-02	Counterweights reinforcement	2	2
		83-07-11	Left and right braking levers	2	2
		83-07-19	Primary flight control	2	2

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AIRWORTHINESS DIRECTIVE SUMMARY SUBJECT INDEX

SMALL AIRCRAFT

JULY 1986

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The indexes, which are published twice a year, are intended to be used as a guide only and should not be relied upon as conclusive evidence of AD applicability. Aircraft operators, inspectors, and persons performing maintenance are reminded of their responsibility under sections 39.3, 43.11, and 43.13 of the Federal Aviation Regulations, respectively, to assure compliance with all applicable AD's.

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ENGINE MAKE & MODEL	TC NO.	AD NUMBER*		PAGE NO.**	BOOK NO.
AIRESEARCH MFG. CO. OF ARIZONA					
(See also GARRETT TURBINE ENGINE CO.)					
TPE-331 Series	E3WE, E2WE	70-04-04		1	1
		70-19-02		1	1
		71-05-07		1	2
		73-26-07	R3	1	2
		74-10-10		3	2
		75-10-05		4	2
		76-16-01		5	2
		78-05-02		7	2
		78-25-08	R3	7	2
		84-01-04		8	2
		84-10-06	R1	12	2
ALLISON DIVISION, GENERAL MOTORS CORP.					
(See Allison Gas Turbine)					
ALLISON GAS TURBINE OPERATIONS (GMC)					
250 Series	E4CE, E10CE	82-24-05		9	2
250-C10 Series	E4CE	68-12-06		1	1
		68-22-02		1	1
		69-18-02		2	1
		69-18-04		2	1
		72-03-06		1	1
250-C18 Series	E4CE	68-12-06		1	1
		68-22-02		1	1
		69-16-05		1	1
		69-18-02		2	1
		69-18-04		2	1
		69-26-03		2	1
		72-03-06		1	2
		77-15-12		3	2
		78-14-08		3	2
250-C19	E4CE	68-12-06		1	1
		72-03-06		1	2
250-C20 Series	E4CE	72-03-06		1	2
		73-19-07		1	2
		74-14-03		1	2
		77-09-08		2	2
		77-15-12		3	2
		78-14-08		3	2
		79-21-01	R1	6	2
		82-13-03		8	2
		83-03-02	R1	9	2
250-C28 Series	E1GL	78-26-01		4	2
		79-06-05		5	2
		79-16-06		5	2
		79-18-13		6	2

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		82-03-02		8	2
		83-01-04		11	2
		85-25-07	R1	19	2
		85-25-08		20	2
		85-25-09		21	2
		85-25-12		23	2
250-C30 Series	E16L	79-06-05		5	2
		79-16-06		5	2
		81-13-12	R1	7	2
		84-17-51	R1	13	2
		84-20-02		14	2
		84-20-54	R2	15	2
		85-06-51		18	2
		85-25-07	R1	DN 86-02	2
		85-25-08		20	2
250-B15 Series	E10CE	72-03-06		1	2
		77-15-12		3	2
250-E17 Series	E10CE	72-03-06		1	2
250-B17 Series	E10CE	72-03-06		1	2
		77-09-08		2	2
		77-15-12		3	2
		79-21-01	R1	6	2
		83-03-02	R1	12	2
AVCO CORPORATION, LYCOMING DIVISION					
All Series	---	78-23-18		20	2
All Series equipped with Bendix injectors		79-04-05		21	2
O-235 Series	E-233	75-08-09		10	2
		78-25-01		21	2
		80-25-02	R2	28	2
		81-18-04	R2	30	2
O-290 Series	E-229	58-02-01		1	1
		75-08-09		10	2
		81-18-04	R2	30	2
O-320 Series	E-274	55-02-02		1	1
		59-10-07		1	1
		63-23-02		4	1
		64-16-05		5	1
		66-20-04		6	1
		73-23-01		5	2
		75-08-09		10	2
		77-07-07		15	2
		77-20-07		17	2
		78-12-08		18	2
		78-12-09		19	2
		79-10-03	R2	23	2
		80-04-03	R1	25	2
		80-14-07		27	2
		81-18-04	R2	30	2
IO-320 Series	IE12	64-16-05		5	1
		65-03-03		5	1
		66-20-04		6	1
		67-22-09		6	1
		73-23-01		5	2
		75-08-09		10	2
		75-09-15		14	2
		81-18-04	R2	30	2
AEIO-320 Series	IE12	81-18-04	R2	30	2
AIO-320 Series	IE12	75-09-15		14	2
		81-18-04	R2	30	2

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LIO-320 Series	1E12	75-08-09		10	2
		81-18-04	R2	30	2
O-340 Series	277	59-10-07		1	1
		64-16-05		5	1
		66-20-04		6	1
		81-18-04	R2	30	2
O-360 Series	286	59-10-07		1	1
		64-16-05		5	1
		66-20-04		6	1
		73-23-01		5	2
		75-08-09		10	2
		79-10-03	R2	23	2
		79-15-02		24	2
		80-04-03	R1	25	2
		80-14-07		27	2
		81-18-04	R2	30	2
HO-360 Series	286	64-16-05		5	1
		75-08-09		10	2
		81-18-04	R2	30	2
IO-360 Series	1E10	64-16-05		5	1
		66-06-03		5	1
		66-20-04		6	1
		67-22-06		6	1
		71-05-02		1	2
		71-11-02		3	2
		73-23-01		5	2
		75-08-09		10	2
		75-09-15		14	2
		81-18-04	R2	30	2
LO-360 Series	286	79-10-03	R2	23	2
		79-15-02		24	2
		80-04-03	R1	25	2
		80-14-07		27	2
		81-18-04	R2	30	2
AIO-360 Series	1E10	73-23-01		5	2
		75-08-09		10	2
		75-09-15		14	2
		81-18-04	R2	30	2
		84-13-05		33	2
AEIO-360 Series	1E10	75-08-09		10	2
		81-18-04	R2	30	2
		84-13-05		33	2
HIO-360 Series	1E10	64-16-05		5	1
		67-22-06		6	1
		72-21-04		3	2
		73-15-04		5	2
		73-23-01		5	2
		75-08-09		10	2
		75-09-15		14	2
		81-18-04	R2	30	2
LIO-360 Series	1E10	73-23-01		5	2
		75-08-09		10	2
		75-09-15		14	2
		81-18-04	R2	30	2
IVO-360 Series	1E1	67-22-06		6	1
		68-08-08		7	1
		75-08-09		10	2
		75-09-15		14	2
		81-18-04	R2	30	2
VO-360 Series	1E1	68-08-08		7	1
		75-08-09		10	2
		81-18-04	R2	30	2

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TIO-360 Series	E16EA	73-23-01		5	2
		75-08-09		10	2
		75-09-15		14	2
		81-18-04	R2	30	2
LTO-360 Series	E26EA	80-04-03	R1	25	2
		81-18-04	R2	30	2
TO-360 Series	E26EA	80-02-13		25	2
		80-04-03	R1	25	2
		81-18-04	R2	30	2
GO-435 Series	228	51-24-01		1	1
		62-23-05		2	1
		69-25-08		1	2
VO-435 Series	279	68-08-08		7	1
		80-04-04	R1	26	2
TVO-435 Series	1E13	68-08-08		7	1
		80-04-04	R1	26	2
GO-480 Series	275	59-10-07		1	1
		60-11-06		2	1
		62-23-05		2	1
		69-25-08		1	2
		73-23-01		5	2
IGO-480 Series	275	62-23-05		2	1
		75-09-15		14	2
GSO-480 Series	284	59-10-07		1	1
		60-11-06		2	1
		62-23-05		2	1
		69-25-08		1	2
IGSO-480 Series	E-284	59-10-07		1	1
		62-23-05		2	1
		68-08-08		7	1
		69-25-08		1	2
		73-23-01		5	2
		81-03-05		29	2
O-540 Series	295	59-10-07		1	1
		63-14-03		3	1
		64-16-05		5	1
		66-14-03		6	1
		66-20-04		6	1
		73-23-01		5	2
		75-08-09		10	2
		81-18-04	R2	30	2
IO-540 Series	1E4	63-14-03		3	1
		64-16-05		5	1
		66-20-04		6	1
		67-22-06		6	1
		69-08-09		7	1
		73-23-01		5	2
		75-08-09		10	2
		75-09-15		14	2
		78-23-08		20	2
		81-03-05		29	2
		81-18-04	R2	30	2
		83-22-04		32	2
AE10-540 Series	1E4	83-22-04		32	2
IGO-540 Series	1E11	62-23-05		2	1
		69-25-08		1	2
		73-23-01		5	2
		74-13-05		8	2
		75-09-15		14	2
		81-03-05		29	2

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IGSO-540 Series	1E7	62-23-05	2	1
		69-25-08	1	2
		72-21-06	4	2
		73-23-01	5	2
		74-13-05	8	2
		81-03-05	29	2
IVO-540 Series	E11EA	68-08-08	7	1
		73-05-01	4	2
		75-09-15	14	2
		80-04-04 R1	26	2
VO-540 Series	E-304	62-03-02	2	1
		68-08-08	7	1
		73-05-01	4	2
		73-23-01	5	2
		80-04-04 R1	26	2
LIO-550 Series	---	73-23-01	5	2
TIO-540 Series	E14EA	71-13-01	3	2
		73-23-01	5	2
		75-09-15	14	2
		80-17-10	27	2
		83-22-04	32	2
		84-19-03 R1	35	2
LTIO-540 Series	E14EA	83-22-04	32	2
		84-19-03 R1	35	2
TVO-540 Series	1E14	73-05-01	4	2
		80-04-04 R1	26	2
TIVO-540 Series	1E14	68-08-08	7	1
		73-05-01	4	2
		80-04-04 R1	26	2
TIO-551 Series	E10EA	73-23-01	5	2
		83-22-04	32	2
TIGO-551 Series	E19EA	73-23-01	5	2
		83-22-04	32	2
IO-720 Series	1E15	73-23-01	5	2
		75-09-15	14	2
T53 Series	E1EA	75-22-02	14	2
		77-17-08	16	2
T5313A	E17EA	71-08-06	1	2
		74-22-07	9	2
		75-12-12	14	2
T5313B	E17EA	71-08-06	1	2
		75-01-05	10	2
		75-12-12	14	2
		86-09-05	BW 86-09	2
T5317A	E17EA	86-09-05	BW 86-09	2
T5309C	E1EA	74-09-03	8	2
T5311B	E1EA	74-09-03	8	2
T5311MD	---	74-09-03	8	2
T5508D	E4NE	76-12-05	15	2
		78-07-04	18	2
LTS 101-600 Series	E5NE	79-06-06 R2	22	2
		79-20-03	24	2
		83-16-03	31	2
		84-02-07	32	2
		84-14-01	34	2

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		86-10-04		BW 86-10	2
LTP 101-600 Series	E7WE	79-06-06	R2	22	2
		79-20-03		24	2
		82-20-51	T	31	2
		86-10-04		BW 86-10	2
BRISTOL SIDDELEY (See ROLLS ROYCE)					
CONTINENTAL TELEDYNE CONTINENTAL MOTORS (See TELEDYNE CONTINENTAL)					
de HAVILLAND ENGINE COMPANY, LTD. (See Rolls Royce)					
DETROIT DIESEL - ALLISON DIV. (See Allison Gas Turbine)					
FAIRCHILD ENGINE DIVISION, FAIRCHILD ENGINE AND AIRPLANE CORP.					
Ranger 6-440-C Series	E-216	52-03-01		1	1
		54-09-01		1	1
FRANKLIN ENGINE CO.					
Franklin 6A4-150 Series	E-238	48-50-01		1	1
Franklin 6A4-165 Series	E-238	51-15-02		1	1
Franklin 6V4-178 Series	E-244	51-28-02		1	1
Franklin 6V4-200 Series	E-244	51-28-02		1	1
GARRETT TURBINE ENGINE CO. (See also AIRESEARCH)					
TPE331 Series	E4WE	70-16-09		1	1
		73-26-07	R3	1	2
		74-10-10		2	2
		74-24-05		3	2
		75-10-05		4	2
		76-16-01		5	2
		78-05-02		7	2
		78-25-08	R3	7	2
		79-12-04		8	2
		84-01-04		15	2
		84-10-06	R1	20	2
		86-08-06		BW 86-08	2
		86-12-02	L	BW 86-12	2
TSE331 Series	E4WE	73-26-03		1	2
		73-26-07	R3	1	2
		78-25-08	R3	7	2
		84-01-04		15	2
		86-12-02	L	BW 86-12	2
TPE 731 Series	E6WE	81-24-08		9	2
		82-23-03	R1	13	2
		86-03-01		BW 86-03	2
		86-11-05		BW 86-12	2
GENERAL ELECTRIC CO.					
CT58 Series	1E3	64-26-02		1	1
		67-01-02		1	1
		69-17-03		2	1
		69-23-02		2	1
		76-13-02		2	2
		78-26-08		4	2

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		79-23-04	4	2
		81-02-02	7	2
		81-18-03	8	2
T58 Series	1E3	64-26-02	1	1
		67-01-02	1	1
		69-17-03	2	1
		69-23-02	2	1
CJ610 Series	1E16	73-23-05	1	2
		75-19-05	2	2
		78-07-06	3	2
		80-08-06 R1	5	2
		85-18-03	8	2
J85-GE-17B	1E16	73-23-05	1	2
CF700 Series	E7EA	73-23-05	1	2
		75-19-05	2	2
		78-07-06	3	2
		80-08-06 R1	5	2
		85-18-03	8	2
GLADDEN PRODUCTS CORP.				
Kinner R-5 Series 2	153	46-06-02	1	1
		46-06-03	1	1
Kinner R-55, R-56	153	46-06-03	1	1
KINNER				
(See GLADDEN PRODUCTS)				
LYCOMING DIVISION				
(See AVCO LYCOMING)				
PRATT & WHITNEY AIRCRAFT and PRATT & WHITNEY AIRCRAFT OF CANADA, LIMITED				
All Models		56-06-02	1	1
Wasp Jr. and R-985 Series	ATC 39, TC E-123, 85, 113, Group 5E-1	57-05-04	1	1
		66-14-04	2	1
		68-09-01	3	1
		70-10-02	4	1
		78-08-07	4	2
PT6A Series	E2NE	69-23-06	3	1
		75-06-01	1	2
		75-11-04	3	2
		80-08-12	6	2
PT6A Series	E4EA	68-05-03	2	1
		69-23-06	3	1
		75-06-01	1	2
		75-11-04	3	2
		78-12-04	4	2
		78-17-07	5	2
		80-04-02	6	2
		80-08-12	6	2
		86-10-05	BW 86-10	2
PT6B-9	E4EA	69-23-06	3	1
		75-11-04	3	2
PT6T Series	E22EA	76-02-08	3	2
		78-17-05	5	2
		79-11-03	5	2
JT15D Series	E1NE	74-26-05	1	2

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JT15D Series	E25EA	78-26-05	1	2
RANGER AIRCRAFT ENGINES (See FAIRCHILD ENGINE DIV.)				
ROLLS-ROYCE LIMITED				
Gypsy Queen 70 Series	E-310	53-13-01	1	1
		68-02-01	1	1
Gypsy Queen 30 Series	E-294	66-03-01	1	1
RR C90	E3IN	72-25-02	1	2
RR O-200 Series	E3IN	72-25-02	1	2
		78-19-02	1	2
RR O-300	E4IN	72-25-02	1	2
TELEDYNE CONTINENTAL MOTORS				
A-65 Series	E-205	46-36-01	1	1
		81-07-06	27	2
A-75 Series	E-213	46-36-01	1	1
		81-07-06	27	2
A-80	217	46-36-01	1	1
A-100	E-241	81-07-06	27	2
C-75 and C-85 Series	E-233	47-40-02	1	1
		49-50-01	2	1
		81-07-06	27	2
C-90 Series	E-252	49-50-01	2	1
		81-07-06	27	2
C-200 Series	E-252	77-13-03	10	2
		81-07-06	27	2
C-125 Series	E-236	47-40-02	1	1
		49-50-01	2	1
		81-07-06	27	2
C-145 Series	E-253	49-50-01	2	1
		50-20-01	2	1
E-165 Series	E-246	50-32-01	3	1
		60-06-04	5	1
		63-15-01	6	1
E-185 Series	E-246	50-32-01	3	1
		51-26-03	4	1
		56-06-01	5	1
		60-06-04	5	1
		60-12-01	6	1
		63-15-01	6	1
E-225 Series	E-267	56-06-01	5	1
		60-06-04	5	1
		60-12-01	6	1
		63-15-01	6	1
IO-360 Series	E1CE	78-14-07	7	1
		78-18-07	5	2
		81-13-10 R1	28	2
TSIO-360 Series	E9CE	71-09-03	1	2
		78-18-07	5	2
		78-18-08	5	2
		81-13-10 R1	28	2
		81-23-02	30	2

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		81-23-02		30	2
IO-346A	E3CE	72-24-03		3	2
		79-05-09		17	2
O-470 Series	E-273	56-06-01		5	1
		63-15-01		6	1
		73-13-04		4	2
		79-05-09		17	2
		85-08-02		33	2
IO-470 Series	3E1	70-14-07		7	1
		72-20-02		2	2
		77-05-04		8	2
		79-05-09		17	2
		85-08-02		33	2
IO-470-A, -C	E-273	79-05-09		17	2
TSIO-470 Series	3E3	70-14-07		7	1
		72-20-02		2	2
		75-09-13		6	2
IO-520 Series	E5CE	70-14-07		7	1
		72-24-03		3	2
		77-05-04		8	2
		77-13-22		10	2
		79-05-09		17	2
		80-01-04		24	2
		81-24-06		30	2
GTSIO 520 Series	E7CE	75-09-13		6	2
		77-13-22		10	2
		79-05-09		17	2
		80-09-11		25	2
		80-25-06	R1	27	2
		81-24-06		30	2
TSIO-520 Series	E8CE	69-18-05		7	1
		70-13-03		7	1
		71-09-03		1	2
		72-24-03		3	2
		75-09-13		6	2
		76-13-09		7	2
		77-05-04		8	2
		77-13-22		10	2
		78-06-01		16	2
		79-05-09		17	2
		80-01-04		24	2
		80-22-05		26	2
		81-24-06		30	2
		82-09-01		31	2
		84-19-04	L	32	2
		84-25-05		33	2
		86-08-07		BW 86-08	2
W-670-9A	E-162	53-09-04		4	1
6-285 Series	E12CE	74-22-04		5	2
		79-05-09		17	2
TURBOMECA					
Astazou IIA	E2IN	76-09-05		1	2
WARNER DIVISION, CLINTON MACHINE CO.					
All Models		51-04-02		1	1
WRIGHT AERONAUTICAL DIV.					
C9GB Series	E-192	51-12-01		1	1

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ENGINE MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
C90C Series	R-219	51-12-01	1	1
C98D Series	R-243	51-12-01 60-04-07	1 1	1 1
Military R-1300 Series	Group SB-14	59-12-07	1	1
Military R-1820 Series	Group SB-10	51-12-01 60-07-08	1 1	1 1
MITSUBISHI SPECIFIC MODIFICATION PEL-J6	Z10EU	83-21-01 86-10-12	1 DW 86-10	2 2

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PROPELLER MAKE & MODEL	TC NO.	AD NUMBER*		PAGE NO.**	BOOK NO.
BEECH AIRCRAFT CORPORATION					
278	P882	62-17-01		1	1
		77-11-03		3	2
B200	P-867	76-10-12		1	2
B201, B202, B203	P-867	76-10-12		1	2
214	P-877	76-10-12		1	2
BELL HELICOPTERS					
(See AD listed in Aircraft)					
Rotors		70-10-08		34	1
DOWTY ROTOL					
R-**/*-30-4/**	P-899	76-18-03		1	2
CR209/3-110-F/1, /11	P6EU	81-05-04		2	2
		81-07-09		2	2
		81-13-05		3	2
FLETTNER MANUFACTURING CO.					
F12 Series	P-902	64-07-03		1	1
FREEMAN AIRCRAFT ENGINEERING CORP.					
FC-203	704	48-48-01		1	1
FX-203	746	48-48-01		1	1
FY-203	747	48-48-01		1	1
HAMILTON STANDARD					
Propeller Blades		50-12-01		1	1
		56-22-01		1	1
		57-13-05		1	1
		58-22-01		2	1
		81-13-06	R1	1	2
		84-25-06		2	2
HARTZELL PROPELLER INC.					
HBC-A3V Series	P6EA	75-17-34		6	2
		77-14-07		8	2
HC-B3Z Series	P15EA	83-08-01	R1	10	2
		86-05-12		BW 86-05	2
HC-B4Z Series	P40EA	83-08-01	R1	10	2
HC-B4M Series	P56GL	83-08-01	R1	10	2

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HC-B5N Series	P44GL	83-08-01 R1	10	2
HC-B3Z Series	P-907	61-03-03	5	1
		63-13-03	5	1
		67-06-04	8	1
HC-C2Y	P-920	64-20-01	6	1
HC-E2Y Series	P9EA	64-20-01	6	1
		71-21-09	1	2
HC-12X20 Series	P-845	56-17-03	1	1
		58-07-01	3	1
		59-01-03	3	1
		59-26-01	4	1
		64-28-01	7	1
		65-21-04	7	1
		68-19-04	9	1
HC-13X20 Series	P-888	58-07-01	3	1
		59-01-03	3	1
		68-19-04	9	1
HC-82V Series	P-878	68-19-04	9	1
HC-82X	P-878	53-15-03	1	1
		58-06-02	2	1
		58-07-01	3	1
		58-09-02	3	1
		59-01-03	3	1
		59-09-03	4	1
		60-16-04	5	1
		68-19-04	9	1
HC-B3W Series	P2EA	67-06-04	8	1
HC-83X Series	P-884	57-08-04	2	1
		58-07-01	3	1
		59-01-03	3	1
		68-19-04	9	1
BHC-92WK Series	P16EA	73-02-01	3	2
HC-92WK	P16EA	73-02-01	3	2
HC-92Z Series	P-892	60-16-04	5	1
		73-02-01	3	2
HC-93Z Series	P-891	57-08-04	2	1
		58-04-02	2	1
		61-03-03	5	1
		63-13-03	5	1
		67-06-04	8	1
( )HC( )( )Y( )	--	77-12-06	6	2
()HC-()()(X,V)	--	85-14-10	11	2
PHC-A3V	P6EA	68-13-02	8	1
		68-19-04	7	1
BHC-A2X	P-908	68-19-04	9	1
HC-A2X	P-908	68-19-04	9	1
HC-A3V	P-908	68-19-04	9	1
HC-A3X	P-908	68-19-04	9	1
HC-D3X	P-908	68-19-04	9	1
110176 Blades		70-05-06	10	1
		72-08-04	1	2

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PROPELLER MAKE & MODEL	TC NO.	AD NUMBER*		PAGE NO.**	BOOK NO.
T10176H Blades		70-05-06		10	1
		74-14-01		3	2
T10173 Blades		72-08-04		1	2
T10173H Blades		74-14-01		3	2
T10178H Blades		74-14-01		3	2
T10282H Blades		74-14-01		3	2
KOPPER AEROMATIC PROPS (See UNIVERSAL PROPELLERS)					
McCAULEY INDUSTRIAL CORP.					
41D5926 Hubs	Group 3-4	54-12-02		1	1
D1093 Hubs	815	54-12-02		1	1
1A170	P-857	82-27-01		24	2
2AF36C Series	P-911	63-10-04		1	1
2A36 Series	P-880	64-24-04		2	1
		68-08-01		3	1
		77-16-01		7	2
		83-24-11	R1	BW 86-04	2
B2A36 Series	P-880	64-24-04		2	1
		68-08-01		3	1
C2A36 Series	P-880	64-24-04		2	1
		68-08-01		3	1
D2A36 Series	P-880	64-24-04		2	1
		68-08-01		3	1
		77-16-01		7	2
2D36 Series	P-901	64-24-04		2	1
		70-04-01		4	1
		77-16-01		7	2
D2A34C Series	P3EA	68-08-01		3	1
		68-10-03		4	1
		77-13-17		4	2
		77-16-01		7	2
		78-20-01		22	2
2A34C Series	P3EA	68-08-01		3	1
		77-13-17		4	2
		77-16-01		7	2
		82-27-02	R1	25	2
		83-24-11	R1	BW 86-04	2
C2A34C	P3EA	82-27-02	R1	25	2
E2A34C Series	P3EA	68-08-01		3	1
		72-25-07		2	2
		77-16-01		7	2
		83-24-11	R1	BW 86-04	2
F2A34C Series	P3EA	77-16-01		7	2
		78-20-01		22	2
D2AF34C Series	P5EA	68-10-03		4	1
		75-24-13		3	2
		77-13-17		4	2
		77-20-03		12	2
		77-23-01		14	2
		78-01-13		19	2
		82-27-02	R1	25	2

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2AF34C Series	P5EA	69-10-03	4	1
		71-18-02	2	2
		77-13-17	4	2
		77-24-04	15	2
2D34C Series	P7EA	68-08-01	3	1
		70-04-01	4	1
		77-16-01	7	2
		77-17-09	11	2
B2D34C Series	P7EA	70-04-01	4	1
		77-17-09	11	2
		82-27-02 R1	25	2
3A32C Series	P21EA	68-08-01	3	1
D3A32C Series	P21EA	68-08-01	3	1
		71-17-03	1	2
		77-13-17	4	2
		85-08-08	28	2
3AF32C	P22EA	77-13-17	4	2
		83-13-06	27	2
D3AF32C	P22EA	77-13-17	4	2
3AF34C	P22EA	77-13-17	4	2
D3A34C	P47GL	77-26-03	17	2
		82-27-02 R1	25	2
3FF32C	P45GL	78-06-02	20	2
<u>HATIER-FIGEAC</u>				
FB 76 Series	P11N	67-14-08	1	1
		67-24-04	1	1
<u>SENSENICH CORP.</u>				
C-2F Series	841	63-19-04	1	1
CS-2F Series	P-861	63-19-04	1	1
C-3F Series	836	63-19-04	1	1
CS-3F Series	P-869	63-19-04	1	1
M76A Series	1P2	54-05-02	1	1
M74D Series	P-886	60-11-08	1	1
76E, M76E Series	P8EA	69-09-03	2	1
All fixed pitch metal propellers		66-23-02	2	1
<u>UNIVAIR AIRCRAFT CORPORATION</u>				
(Formerly UNIVERSAL)				
F200 Series	P-820	47-50-13	1	1
		50-34-01	1	1
		73-20-08	1	2
<u>UNIVERSAL AIRCRAFT INDUSTRIES</u> (KOPPERS)				
(See UNIVAIR AIRCRAFT)				

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EQUIPMENT MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
AC SPARK PLUG OF GENERAL MOTORS CORP.				
AC IA-87 spark plugs		54-04-01	1	1
AC diaphragm type fuel pumps		54-21-01	1	1
AEROSONIC CORPORATION				
Fuel flow transducers, P/Ns 33184-1, 32622-6		80-17-04	1	2
AIR ASSOCIATES				
M-264 safety belts		50-18-03	1	1
AIRBORNE MANUFACTURING, INC.				
(Formerly AIRBORNE MECHANISMS)				
113A Series vacuum pumps		64-01-01	1	1
1H Series fuel selector valves		70-22-02	1	1
113A, 200CC, 200CW, 220CC, 220CW, 221CC, 222CW engine driven pumps		76-16-02	1	2
211CC, 212CW, 242CW, 441CC, 442CW dry air pumps		79-13-08	1	2
AIRCRAFT BELT & TRIM CORP.				
LBM-1900 Series safety belts		54-20-01	1	1
AIRCRAFT METAL PRODUCTS				
Oil and fuel system hoses		79-26-05	1	2
AIR CRUISERS CO.				
12D11751-7, 12D11751-8 and 18D23350-5 life rafts		71-02-01	1	2
D23835-403 life rafts		82-05-06	2	2
12D11751, 17D23336, 18D3350, 21D23548, 21D23541, 22D23585, D23835 life raft system, and life raft assembly 22D23585		75-26-06	1	2
AC-8 life jackets		73-01-03	1	2
AIRESEARCH				
GTCP30 Series, APU's		74-24-09	1	2
TSCP700-4E,-5 APU's		78-10-04	1	2
AIROTECH, INC.				

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Harness/container assemblies		85-09-01	1	2
AMERICAN INDUSTRIAL SALES (EISEMANN) Eisemann Magnetc AM-4, -6, LA-4, 6		69-09-01	1	1
AMI INDUSTRIES, INC. Crew seats 716 Series, 865 Series		83-21-06 R1	1	2
AMIEX AIRCRAFT SUPPLIES, INC. Battery packs		81-21-05	1	2
AUTO-CRAT MANUFACTURING CO. BN1-1700 Series safety belts		61-20-01	1	1
BN1-2001, BN 3-1501, BN 3-6001 and BN3-7001 Series safety belts		62-23-01	1	1
BEECH AIRCRAFT CORP. P/N 113652 safety belt buckles		55-08-01	1	1
BAK-109 air conditioners		66-02-01	1	1
BENDIX CORPORATION (Executive Office) 9054 fuel flow transmitter		63-09-01	1	1
Starter holdback spring, Model 756, Garwin G-760		65-21-01	1	1
Fuel injection systems		73-10-02	2	2
		78-23-10	See Avco AD	
		79-21-08	8	2
		79-26-03	9	2
S4LN, S4RN, S6LN, S6RN, S8LN, S8RN magnetos		73-07-04	1	2
S4LN, D4LN, S6LN, D6LN magnetos		82-20-01	15	2
S-20 Series magnetos		74-26-09	2	2
		78-09-07 R3	4	2
S-200 Series magnetos		74-26-09	2	2
S-1200 Series magnetos		74-26-09	2	2
		78-09-07 R3	4	2
		82-13-01	14	2
D-2000 Series magnetos		78-09-07 R3	3	2
		78-18-04	4	2
		79-12-07	5	2
		79-18-06	7	2
		80-17-14	9	2
		82-11-05	13	2
D-2200 Series magnetos		78-18-04	4	2
		79-12-07	5	2
		79-18-06	7	2
		80-17-14	9	2
		82-11-05	13	2
D-3000 (blue) Series magnetos, D-3200		78-09-07 R3	4	2
		81-12-06 R1	11	2
Switches		76-07-12	3	2
Autopilot M-4		81-01-06	10	2

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Starting vibrator assemblies		81-17-01	12	2
PRACTT AIRCRAFT SPECIALTIES, INC.				
Air filters		81-15-03	1	2
PRIGGS & STRATTCN CORP.				
A-8 ignition switch		50-04-01	1	1
B-5 ignition switches		53-26-01	1	1
BRCWN-LINE CORP.				
WE-2002-2 safety belts		59-24-03	1	1
CHALMICE, INC.				
Auxiliary fuel system C-20, C-22		80-08-04	1	2
CHAMPICN SPARK PLUG COMPANY				
Oil filters CH48108, CH48109		77-12-05	1	2
CHRCMALOY				
Rescue locator beacons, Series RLB-6		74-24-07	1	2
CLEVELAND AIRCRAFT PRODUCTS INC.				
6.00 EMB wheels - No. C-28500		48-08-02	1	1
6.00-6 wheel/brake assy., P/N 3080C/37-200A		71-06-08	1	2
DAVIS AIRCRAFT PRODUCTS, INC.				
FDC-1650 series safety belts		57-14-02	1	1
FDC-2700 series safety belts		64-10-03	1	1
DETRCIT DIESEL				
Governors		82-12-04	1	2
THE DEUTSCH COMPANY (METAL COMPONENTS DIV.)				
Hose assemblies		78-25-03	1	2
ECLIPSE-PIONEER				
(See BENDIX CORP.)				
EDO CORP.				
92-1400 floats		47-50-05	1	1
249A2870 (A Model only) floats		62-17-04	1	1
EDISCN, THCMAS A.				
(See GARWIN)				
EISEMANN (See AMERICAN INDUSTRIAL SALES)				
ECN CORPCRATICN				
Seat belts and harnesses E2900, E8000		80-05-04	1	2
FAIRCHILD INDUSTRIES PRCDUCTS				
Cockpit voice recorder A100		81-04-06	1	2

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FIRESTONE Aircraft tires 18x5.5/10 Mach I/004.90		78-20-12	1	2
GARRETT Emergency locator transmitters, Rescu/88		73-07-02	1	2
GARMIN, INC. 22-802-03 through -14, 22-802-022 engine gage units		66-07-03	1	1
GOODRICH, B.F. 26 x 6.6, 14 PR Tubeless 200 MPH Tire Aircraft tires		71-14-02 83-26-03	1 1	2 2
GOODYEAR AEROSPACE CORP. Fuel cells BTC-39 Series		78-05-06	1	7
GRAVES, HERB M. Herbie Hog parachute		84-10-03	1	2
HAMILL MANUFACTURING COMPANY Safety belts GA-4, GA-5		80-05-02	1	2
INDIANA MILLS AND MANUFACTURING Safety belts IMM 111040-1,-2,-3,-4,-8		79-16-02	1	2
INDUCTION AIR FILTERS Paper induction air filters		84-26-02	1	2
JANITROL AERO DIVISION (MIDLAND ROSS CORP.) Combustion heaters B1500, B2030, B3040, B4050		82-07-03	1	2
JET ELECTRONICS & TECHNOLOGY Emergency power supplies PS-823( ) Emergency power supplies PS-835 Area navigation systems DAC-2000, DAC-7000		80-18-08 82-21-04 80-19-19	1 1 1	2 2 2
WALTER KIDDE AND OVERLAND AVIATION Cartridges		84-18-07	1	2
LEIGH SYSTEMS Sharc 7 Series emergency locator transmitters (ELTs)		74-18-15 74-20-10	1 1	2 2
LOCKHEED AIRCRAFT SERVICE CO. Model 209 digital flight data recorder		75-08-17	1	2
MARBCO (MAXIMOFF RESEARCH CO.) 15-1 safety belts		62-24-05	1	1
MARVEL-SCHEBLER PRODUCTS DIVISION, BORG-WARNER CORP.				

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MA-3 Series carburetors		66-05-04 R1	1	2
		69-24-03	2	1
		72-06-05 R1	BW 86-12	2
MA-4 Series carburetors		63-22-03	1	1
		66-05-04 R1	1	2
		69-24-03	2	1
		72-06-05 R1	BW 86-12	2
MA-5 Series carburetors		69-24-03	2	1
		72-06-05 R1	BW 86-12	2
MA-6 Series carburetors		66-05-04 R1	1	2
		69-24-03	2	1
		72-06-05 R1	BW 86-12	2
HA-6 Series carburetors		69-24-03	2	1
		72-06-05 R1	BW 86-12	2
		77-13-16	3	2
		79-08-06	3	2
McCAULEY				
Main wheel assemblies P/N D-30063-1, -2-4		74-13-06	1	2
Propeller governors DCF290D, DCFS290D, DCFU290D, DCFUS290D		75-12-07	1	2
NARCO				
Emergency locator transmitter batteries		77-02-08	1	2
PACIFIC INFLATABLES COMPANY				
Flotation devices 4000, 4000E Series		80-07-13	1	2
PACIFIC SCIENTIFIC COMPANY				
Restraint systems		80-01-05 R1	1	2
		83-11-03	2	2
PAN AVION				
PA-5 life vest		67-18-04	1	1
C-30A life rafts		74-22-03	1	2
LSR-174(0), -174(2) Evacuation Slides		75-16-23	1	2
PARKER HANNIFIN				
Airborne dry air pumps and auxiliary dry air pumps		86-01-06	BW 86-01	2
PATHFINDER CORP.				
Emergency locator transmitters (ELTs)		74-19-02	1	2
PRESTOLITE CO.				
Alternator cooling fans, P/N FU 1609 & FU1609A		72-15-02	1	2
Alternator - gear driven, P/N AIV-9400 thru AIV-9410		76-02-07	1	2
PURE-AIR, INC.				
Carburetor air inlet filter		80-08-14	1	2
PURITAN-BENNETT AERO SYSTEMS COMPANY				

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EQUIPMENT MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
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Oxygen regulators		80-16-05	1	2
Hose assembly per STC modification		81-19-04	1	2
RCTOR-MASTER, INC. 325E10 turbochargers		82-27-03	1	2
RUPERT PARACHUTE CO. Models 50, N50, 65, 80, S-2194 Series safety belts		61-08-02	1	1
THE RUSSELL MFG. CO. RM-3 and RM-4 safety belts		56-21-04	1	1
RM-23 safety belts		61-20-03	1	1
SCOTT AVIATION Chemical oxygen generators		73-26-05	1	2
Oxygen cylinders		84-02-08	1	2
Oxygen mask connectors		85-26-03	2	2
SECUR AIGLON Safety belts		85-26-01	1	2
SHAKESPEARE PRODUCTS CO. 3A-42 and 3A-81 push-pull controls		50-05-02	1	1
SLICK ELECTRC INC. Magnetos		74-18-05	1	2
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		81-16-05	3	2
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SPZ-7000 computer system		85-07-03	1	2
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**The page numbers listed are for the sections designated by the manufacturer's name.

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AIRWORTHINESS DIRECTIVE SUMMARY SUBJECT INDEX

SMALL AIRCRAFT

JULY 1986

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The indexes, which are published twice a year, are intended to be used as a guide only and should not be relied upon as conclusive evidence of AD applicability. Aircraft operators, inspectors, and persons performing maintenance are reminded of their responsibility under sections 39.3, 43.11, and 43.13 of the Federal Aviation Regulations, respectively, to assure compliance with all applicable AD's.

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86-01-02 CESSNA: Letter issued January 6, 1986. Applicable to Model S550 airplanes, Serial Numbers S550-0001 through S550-0079, certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent failure of the cotter pins securing the left and right main landing gear torque link connections, accomplish the following:

A. Incorporate the following into the Limitations Section of the FAA-approved Airplane Flight Manual (AFM). This may be accomplished by including a copy of this AD in the AFM.

"Prior to each flight, verify that the cotter pins securing the left and right main landing gear torque link connections are installed. If either cotter pin is broken or missing, prior to further flight, accomplish the repair procedure referenced in Cessna Alert Service Letter SLA S550-32-03, dated December 20, 1985."

NOTE: See attached drawing, "Main Landing Gear Torque Link, Figure 402."

B. Within the next 30 days or 20 hours time-in-service after the effective date of this AD, whichever occurs first, inspect and repair, if necessary, the left and right main landing gear torque link connections, in accordance with Cessna Alert Service Letter (SLA) S550-32-03, dated December 20, 1985. Compliance with the requirements of this paragraph constitutes terminating action for the requirements of paragraph A., above.

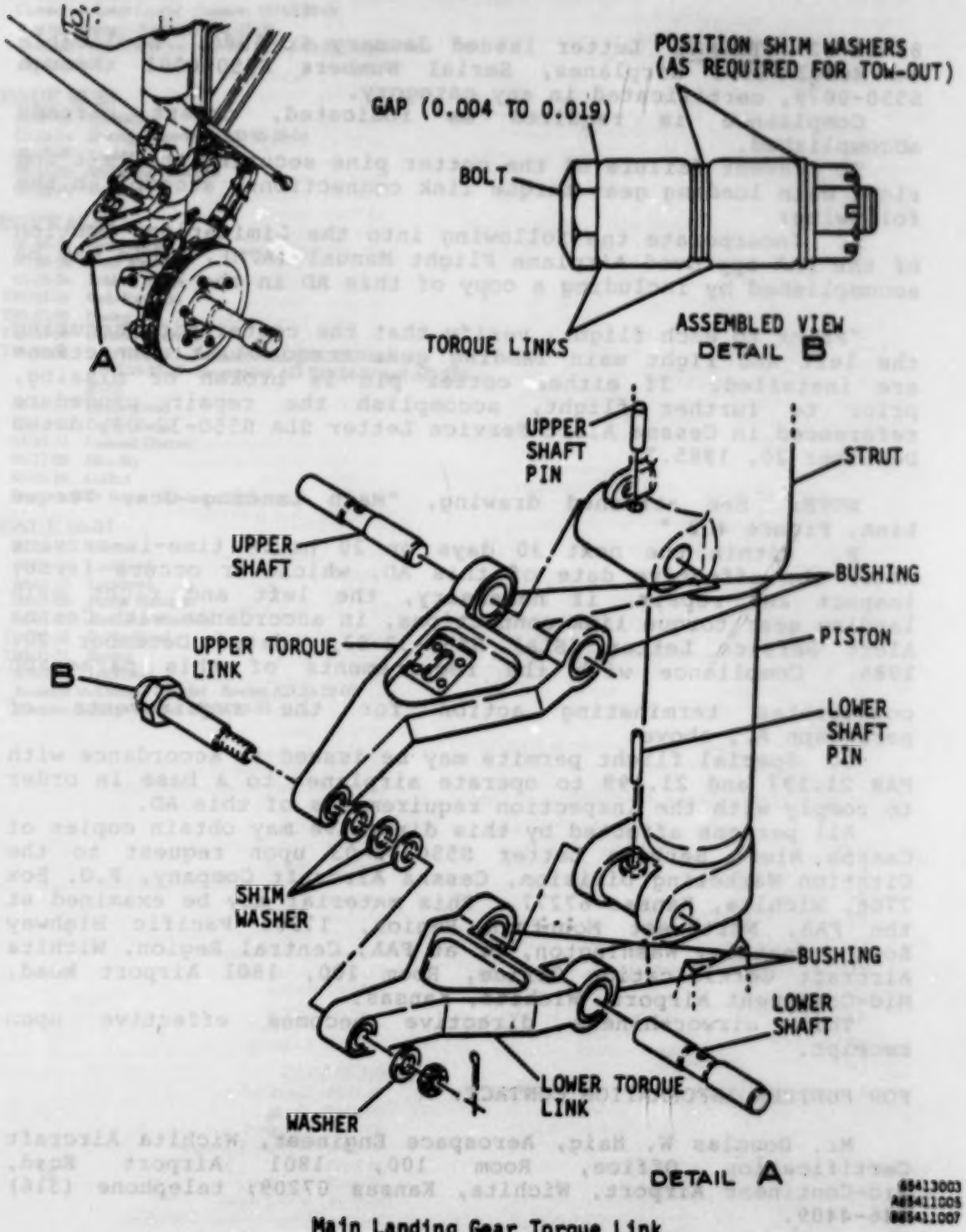
C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the inspection requirements of this AD.

All persons affected by this directive may obtain copies of Cessna Alert Service Letter S550-32-03 upon request to the Citation Marketing Division, Cessna Aircraft Company, P.O. Box 7706, Wichita, Kansas 67277. This material may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at FAA, Central Region, Wichita Aircraft Certification Office, Room 100, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Douglas W. Haig, Aerospace Engineer, Wichita Aircraft Certification Office, Room 100, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4409.



Main Landing Gear Torque Link
Figure 402

86-01-03 LOCKHEED-CALIFORNIA COMPANY: Amendment 39-5211. Applies to Lockheed Model L-1011 series airplanes, certificated in any category. Compliance required as indicated, unless previously accomplished within 90 days prior to the effective date of this AD.

To prevent loss of the availability of one or more passenger doors during an emergency evacuation due to malfunction of the door emergency mode opening system, accomplish the following:

A. Within 30 days after the effective date of this AD, test and repair prior to further flight, as necessary, all passenger doors in accordance with Lockheed Service Bulletin 093-52-206, dated December 20, 1985, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

B. Alternate means of compliance with this AD which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplane to a base for accomplishment of the tests or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Lockheed-California Company, P.O. Box 551, Burbank, California 91520, Attention: Commercial Support Contracts, Dept. 63-11, U-33, B-1. These documents may also be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective January 21, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Franklin Tiangsing, Aerospace Engineer, Systems and Equipment Branch, ANM-131L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 548-2831.

Main Landing Gear Torque Link
Figure 402

86-01-05 LOCKHEED-CALIFORNIA COMPANY: Amendment 39-5210. Applies to Lockheed Model L-1011-385 series airplanes, certificated in any category, equipped with Dynamic Controls Corporation oxygen initiator sequence timer switch(es), Part Numbers 11035-2/-3. Compliance is required as indicated, unless previously accomplished.

To prevent malfunction of the passenger oxygen system when activated, due to dormant shorted transient suppression capacitors in the oxygen initiator sequence timer switch(es), accomplish the following:

A. Within 30 days after the effective date of this AD, perform a resistance check of oxygen initiator sequence timer switch(es) in accordance with Lockheed Service Bulletin 093-35-041, Part I, dated December 18, 1985, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer may obtain copies upon request to Lockheed-California Company, P. O. Box 551, Burbank, California 91520, Attention: Commercial Support Contracts, Dept. 63-11, U-33, B-1. These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective January 21, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. George Y. Mabuni, Aerospace Engineer, Systems & Equipment Branch, ANM-132L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 548-2831.

86-01-06 AIRBORNE DIVISION, PARKER HANNIFIN CORPORATION: Amendment 39-5206. Applies to the following Airborne Dry Air Pumps and Auxiliary Dry Air Pumps installed on piston engine airplanes certificated in any category:

AIRBORNE PART NUMBER	SERIAL NUMBERS
Dry Air Pumps	
241CC-13	10AA30 thru 10AA36 and 10AA38
242CW	10AA281 thru 10AA293
441CC	9AA260 thru 9AA288 9AA291, 9AA294, 9AA295
441CC-7	9AA929 thru 9AA-949 9AA953, 9AA954 9AA956, 9AA957, 9AA959
442CW	9AA850 thru 9AA875 9AA880 thru 9AA886, 9AA888 thru 9AA903, 9AA905 thru 9AA921, 9AA928, 9AA934, 9AA936, 9AA939, 9AA940, 9AA945 thru 9AA952, 9AA955 thru 9AA958, 9AA962 thru 9AA967
442CW-4	10AA173 thru 10AA179 10AA182 thru 10AA199 10AA201, 10AA202
442CW-12	10AA356, 10AA357, 10AA386, 10AA389
Auxiliary Dry Air Pumps	
4A2-1	9AA44 thru 9AA46
4A3-1	9AA56, 9AA59 thru 9AA66, 9AA73, 9AA79 thru 9AA82 10AA83 thru 10AA88, 10AA90 thru 10AA94, 10AA96, 10AA114, 10AA126, 10AA130, 10AA131, 10AA132, 10AA138, 10AA150, 10AA154, 10AA155, 10AA159, 10AA161

NOTE: These pumps were not available for installation before September 1, 1985. Therefore, new Airborne Dry Air Pumps or Auxiliary Dry Air Pumps installed previous to that date are exempt from this AD. Pumps that have been reworked by Airborne will have a white date code stamped on the pump

housing near the discharge port. This will indicate that the pump complies with this AD.

COMPLIANCE: Required as indicated, unless previously accomplished. To prevent premature failure of the Airborne Dry Air and Auxiliary Dry Air Pumps, accomplish the following:

(a) For Dry Air Pumps P/N's 241CC-13, 242CW, 441CC, 441CC-7, 442CW, 442CW-4, and 442CW-12, prior to further flight in IFR conditions, inspect installed dry air pump(s) to determine if one of the subject pumps is installed.

(1) If one of these pumps is installed, and if the airplane is equipped for IFR flight, fabricate using minimum 0.10 inch letters, and install a placard in full view of the pilot which states; "FLIGHT IN IFR CONDITIONS PROHIBITED", and operate in accordance with this limitation.

(2) And within 15 days of the effective date of this AD, replace the subject pump and remove the placard. Return pump to Airborne as described in Airborne Service Letter No. 30, dated November 11, 1985.

(b) For Airborne Auxiliary Dry Air Pump P/N 4A2-1 or 4A3-1, prior to further flight in IFR conditions, inspect the auxiliary dry air pump if installed, to determine if one of the subject pumps is installed.

(1) If one of these pumps is installed, fabricate using a minimum of 0.10 inch letters and install a placard in full view of the pilot which states;

"STANDBY VACUUM SYSTEM MAY BE INOPERATIVE DUE TO VACUUM PUMP MALFUNCTION".

(2) And within 30 days of the effective date of this AD, replace the subject pump and remove the placard. Return pump to Airborne as described in Airborne Service Letter No. 30, dated November 11, 1985.

(c) Aircraft may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(d) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 232, Des Plaines, Illinois 60018, Telephone (312) 694-7357.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Betty Annable, Parker Hannifin Corp., Airborne Division, 711 Taylor Street, Elyria, Ohio 44036 or the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles Smalley, Aerospace Engineer, Systems and Equipment Branch, ACE-130C, FAA, Central Region, Chicago Aircraft Certification Office, 2300 East Devon Ave., Des Plaines, Illinois 60018; Telephone (312) 694-7126.

86-01-07 HAMILTON STANDARD: Amendment 39-5209. Applies to Hamilton Standard model 54H60-77, -81, -123, -125, -131, and -133 propellers with propeller control S/N 850901 or lower installed on, but not limited to, CV580, L188 and Guppy aircraft.

Compliance is required within the next 30 days after the effective date of this AD, unless already accomplished.

To prevent loss of aircraft control and possible loss of aircraft, accomplish the following:

(a) Within the next 30 days after the effective date of this AD, conduct a functional check of the propeller valve housing cover input gear in accordance with Hamilton Standard 54H60 ASB No. 61-A119, Paragraph 2.A dated December 10, 1985, or FAA-approved equivalent.

(1) If the application of less than 36 pounds of load causes slippage of the input lever, remove the valve housing cover assembly prior to further flight.

(2) If 36 to 38 pounds can be maintained without slippage of the input lever, mark the valve housing cover in accordance with Paragraph 2.D.(1) and return to service.

(b) At the next component maintenance/propeller overhaul after completing the above functional check or by January 15, 1988, whichever occurs sooner, inspect the valve housing cover in accordance with Paragraphs 2.B and 2.C of 54H60 ASB No. 61-A119. Remove from service all input gears with change letter "G" indicated and replace with a serviceable gear. Mark the valve housing cover in accordance with Paragraph 2.D.(2).

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine and Propeller Standards Staff, ANE-110, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine and Propeller Standards Staff may adjust the compliance time specified in this AD.

Hamilton Standard 54H60 ASB No. 61-A119, dated December 10, 1985, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1).

All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Hamilton Standard, Division of United

Technologies Corporation, Windsor Locks, Connecticut 06096. This document also may be examined at the Office of the Regional Counsel, Attn: Rules Docket 85-ANE-48, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on January 17, 1986.

FOR FURTHER INFORMATION CONTACT:

Martin Buckman, Engine and Propeller Standards Staff, Aircraft Certification Division, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7079.

T85-26-52 DEHAVILLAND: Telegram issued January 3, 1986. Applies to DeHavilland DHC-8-101 aircraft certificated in any category, serial numbers 15 thru 24.

Compliance required as indicated unless already accomplished.

Incorporate the following into the limitations section of the airplane flight manual, prior to further flight. This may be accomplished by including a copy of this AD in the airplane flight manual (Page 1-3-1):

A. The aircraft is not to be operated at altitudes above 11,000 feet until incorporation of DeHavilland Modification No. 8/0468.

B. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mark Baldwin, Standardization Branch, ANM-113, FAA, Northwest Mountain Region, Telephone (206) 431-2978.

T86-01-51 BOEING: Telegram issued January 9, 1986. Applies to all Model 747 series airplanes equipped with General Electric **CF6** engines certificated in any category. To prevent accumulation of flammable fluid in the engine struts which constitutes a fire hazard accomplish the following:

1. Within the next 72 hours time-in-service inspect and, if necessary, clear the engine strut drains in accordance with the procedures specified in Chapter 71-71-00 of Boeing Maintenance Manual for the Boeing Model 747 airplane equipped with General Electric **CF6** engines. Report results of inspections to FAA, Northwest Mountain Region, Seattle Aircraft Certification Office, Propulsion Branch, Attn: Kanji Patel, ANM-140S, 17900 Pacific Highway South - C-68966, Seattle, Washington 98168, Telephone (206) 431-2973.

2. (A) For airplanes, line numbers through 341, repeat the inspections required by paragraph 1, above, at intervals not to exceed 1000 hours time-in-service until modifications described in Boeing Service Bulletin 747-71-2146 dated November 24, 1978 or later FAA-approved revisions, and Boeing Service Bulletin 747-71-2155 revision 3 dated September 28, 1984 or later FAA-approved revisions are incorporated.

(b) For airplanes, line numbers 342 through 452, repeat the inspections required by Paragraph 1 above at intervals not to exceed 1000 hours time-in-service until modifications described in Boeing Service Bulletin 747-71-2155 Revision 3 dated September 28, 1984 or later FAA-approved revisions are incorporated.

3. Alternate means of compliance with provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA Northwest Mountain Region.

4. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the inspections and if necessary cleaning of the engine strut drain lines.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Kanji K. Patel, ANM-140S, FAA Northwest Mountain Region, Seattle, Washington, Telephone (206) 431-2973.

85-22-51 LOCKHEED CALIFORNIA COMPANY: Amendment 39-5199. Applies to Lockheed Model L-1011-385 series airplanes certificated in any category.

To prevent fires which may be ignited by damaged electrical wires, accomplish the following, unless previously accomplished:

A. Within ten (10) days after the effective date of this AD, using the procedure described in Lockheed Service Bulletin 093-24-A127 dated October 29, 1985, inspect the auxiliary power unit (APU) cables and the No. 2 engine generator feeder cables located on the left side, between the second frame forward of pressure bulkhead and the pressure bulkhead, at approximately Waterline (WL) 179, for a minimum clearance of one-half inch between the cables and the closest part of the bleed air duct insulated cover.

If the clearance is less than one-half inch, before further flight, adjust the cables to provide adequate clearance in accordance with Lockheed Service Bulletin 093-24-A127, dated October 29, 1985.

B. Within ten (10) days after the effective date of this AD, inspect the APU cables and No. 2 engine generator feeder cables located on left side between the second frame forward of pressure bulkhead and the pressure bulkhead at approximately WL 179, which are routed adjacent to the bleed air duct, for proper clamping and condition of insulation. If insulation damage is found, check closely for wire damage. If damage to insulation or wires is found, before further flight, repair in accordance with FAA-approved maintenance procedures.

C. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Lockheed-California Company, P.O. Box 551, Burbank, California 91520, Attention: Commercial Support Contracts, Dept. 63-11, U-33, B-1. These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective January 10, 1986, as to all persons, except those persons to whom it was made immediately effective by telegraphic AD T85-22-51, issued October 30, 1985.

FOR FURTHER INFORMATION CONTACT:

Mr. Harold P. Wasinger, Aerospace Engineer, Systems & Equipment Branch, ANM-130L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 548-2831.

85-19-03 R1 MCDONNELL DOUGLAS: Amendment 39-5137 as amended by Amendment 39-5200. Applies to McDonnell Douglas Model DC-9 and C-9 (Military) series airplanes, fuselage numbers 1 through 1248, certificated in any category, with more than 30,000 landings. Compliance required as indicated, unless previously accomplished.

A. Within the next 1,600 landings after the effective date of this AD, inspect the skin and doublers around the upper anticollision light cutout for cracks in accordance with McDonnell Douglas Service Bulletin 53-186, dated April 17, 1985 (hereinafter referred to as SB 53-186), Figure 2, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

B. If no cracks are found under Condition I, Phase I, as referenced in SB 53-186, perform repetitive eddy current inspections at intervals not to exceed 3,500 landings in accordance with Figure 2 of SB 53-186, until such time as stress coining of plate nut clearance holes, as outlined under Condition 1, Phase II of SB 53-186, or SB 09530186 (originally identified as McDonnell Douglas DC-9 Service Sketch 3626C), is accomplished.

C. If cracks are found, before further flight:

1. For cracks less than 1.00 inch long, repair cracked area in accordance with Conditions II or III of the Accomplishment Instructions in SB 53-186, or SB 09530186.

2. For cracks 1.00 to 1.25 inches long, repair cracked area in accordance with Condition III of the Accomplishment Instructions in SB 53-186, or SB 09530186.

3. For cracks greater than 1.25 inches, repair in accordance with data approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Terminating Action. Completion of the Accomplishment Instructions of SB 53-186, or SB 09530186, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region, constitutes terminating action for this AD.

E. Alternative inspections, modifications, or other actions which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Upon request of operator, an FAA maintenance inspector, subject to prior approval of the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the repetitive inspection intervals specified in this AD

to permit compliance at an established inspection period of the operator if the request contains substantiating data to justify the increase for that operator.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-750 (54-60). These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

Amendment 39-5137 became effective October 14, 1985.

This amendment 39-5200 became effective January 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Michael N. Asahara, Sr., Aerospace Engineer, Airframe Branch, ANM-122L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 548-2826.

BOEING
Airworthiness Directive
Revision
Volume II

84-20-03 R1 BOEING: Amendment 39-4923 as amended by Amendment 39-5183. Applies to Model 737 series airplanes, certificated in any category, as listed in Boeing Service Bulletin 737-53-1075, Revision 1, dated September 2, 1983, with more than 20,000 flight hours time in service or 7 years since manufacture, whichever occurs first. Compliance is required as indicated. To ensure the continuing structural integrity of the aft pressure bulkhead, accomplish the following:

A. Within 120 days after the effective date of this AD, unless already accomplished within the last 21 months, visually inspect the B.S. 1016 pressure bulkhead for cracks and corrosion in accordance with Boeing Service Bulletin 737-53-1075, Revision 1, dated September 2, 1983, or later FAA approved revisions. Remove any obstruction to the drain hole in the frame chord and replace any deteriorated leveling compound as noted in the service bulletin. Treat the area of inspection with corrosion inhibitor, BMS 3-23, or equivalent.

B. Accomplish the drain hole enlargement specified in the service bulletin, within one year following the effective date of this amendment.

C. If cracking or corrosion is found, prior to further flight, repair in accordance with (1) Boeing Service Bulletin 737-53-1075, Revision 1, dated September 2, 1983, or (2) a method approved by the Manager, Seattle Aircraft Certification Office, Northwest Mountain Region, Seattle, Washington.

D. Repeat the visual inspections and corrosion inhibitor treatment of paragraph A, above, at intervals not to exceed 2 years time in service.

E. Aircraft may be ferried to a maintenance base for repair in accordance with FAR 21.197 and 21.199.

F. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, Northwest Mountain Region, Seattle, Washington.

G. Upon request of the operator, an FAA Maintenance Inspector, subject to prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the repetitive inspection intervals specified in this AD to permit compliance at an established inspection period of an operator, if the request contains substantiating data to justify the adjustment period.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company,

P. O. Box 3707, Seattle, Washington 98124. These documents may also be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington.

Amendment 39-4923 became effective November 5, 1984.

This Amendment 39-5183 becomes effective January 20, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Carlton Holmes, Airframe Branch, ANM-120S; telephone (206) 431-2926. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

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T85-05-51 British Aerospace

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85-07-04 Airbus Industrie
85-07-05 Lockheed
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Summary of Airworthiness Directives for Large Aircraft Volume II, Book 2. Cessna Aircraft: Remove old pages 1, 2, and 3 - insert new pages 1, 2, and 3.

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85-15-02 British Aerospace
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85-16-04 Gates Learjet
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85-17-02 McDonnell Douglas
85-17-05 Boeing
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T85-17-51 Pratt & Whitney
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85-19-01 Boeing
85-19-02 McDonnell Douglas - Supersedes AD 80-09-07
85-19-03 McDonnell Douglas
85-19-04 Boeing
85-19-08 British Aerospace
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85-22-01 McDonnell Douglas
85-22-02 Boeing
85-22-03 McDonnell Douglas and Airbus Industrie
85-22-04 Gates Learjet
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85-22-07 Boeing
85-22-08 Gates Learjet
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85-23-01 Lockheed
85-23-02 Boeing
85-23-03 Lockheed
85-23-04 McDonnell Douglas
85-23-05 Bell
85-23-07 King Radio
T85-23-51 Boeing Vertol
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85-24-01 McDonnell Douglas
85-24-02 Boeing
85-24-04 Cessna
T85-24-51 Saab Fairchild
Correction Gates Learjet - Corrects AD 85-22-04
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85-14-51 DeHavilland
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T86-01-51 Boeing
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T86-02-51 Pratt & Whitney
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86-03-01 Garrett
86-03-02 Fokker
86-03-03 Pratt & Whitney
86-03-04 Fokker
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T86-02-52 Pratt & Whitney - Supersedes AD T86-02-51
T86-02-53 Boeing
85-23-07 King
85-24-04 Cessna
85-25-02 King
85-25-10 Cessna
Revision Boeing - Revises AD 83-21-02

86-03-01 GARRETT TURBINE ENGINE COMPANY (formerly the AiResearch Manufacturing Company of Arizona): Amendment 39-5212. Applies to all Model TFE731-2, -3, -3A, -3AR, -3B, -3BR, and -3R turbofan engines installed in aircraft certified in all categories equipped with turbine interstage transition ducts, part numbers 3071486-3 through -10, 3072318-1 and -3, 3072726-1 and -2, identified by individual serial numbers (hereinafter referred to as duct(s)).

Compliance is required prior to the accumulation of 1,150 hours time in service from the effective date of this AD, unless already accomplished.

NOTE: A substantial number of additional ducts were found to be subject to the same defect after Garrett issued SB TFE731-72-3309, dated March 7, 1985. This SB was specified in the NPRM (50 FR 19033). Revision 1 of said SB, dated September 6, 1985, was subsequently issued, and it now contains complete listings of affected ducts. Therefore, engines which were determined to be unaffected in accordance with the original SB, must be reverified.

To prevent separation of the engine rear mount from the duct, accomplish the following:

(a) Determine, by engine visual inspection, whether the turbine interstage transition duct S/N is included in Table 1 or Table 2 of Garrett SB TFE731-72-3309, Revision 1, dated September 6, 1985, (SB 3309) or FAA-approved equivalent.

(1) Engine visual inspection which ensures that the duct S/N is not in Table 1 or Table 2 constitutes terminating action for this AD.

(2) Ducts listed in Table 1 are known to have inadequate weld penetration, and require modification or replacement as specified below. Ducts listed in Table 2 might have inadequate weld penetration, and must either pass the additional X-ray inspection or be modified or replaced, as specified below.

(b) Replace any duct listed in Table 1 of SB 3309 with a serviceable duct, or perform the actions of SB 3309, paragraph 2.B. (modification).

(c) Replace any duct listed in Table 2 of SB 3309 with a serviceable duct, or perform the actions of SB 3309, paragraph 2.C. (X-ray inspection and/or modification).

NOTES: (1) Regardless of statements in SB 3309 referring to the installation of the aft mount auxiliary bracket (in accordance with SB TFE731-72-3170) as an "interim compliance", such installation constitutes terminating action for this AD. Ducts which are modified by incorporation of the aft mount

auxiliary bracket, shall not have the bracket removed and be returned to service unless the other actions of SB 3309, paragraph 2.B. or 2.C., as applicable, are performed.

(2) The aft mount auxiliary bracket requires a longer engine mount bolt which is a new aircraft part. Therefore, each type aircraft using this bracket must have an FAA-approved SB to complete the installation; otherwise the bracket shall not be used.

(d) For ducts which are determined to have a satisfactory weld at a clevis position used to mount the engine to the aircraft, but are determined to have an unsatisfactory weld(s) at the other clevis position(s), an FAA-approved alternative means of compliance with the provisions of SB 3309, paragraph 2.B.(2) or 2.C.(6), as applicable, is as follows:

(1) Cut through the bolt holes of the unsatisfactory clevis(es) in accordance with paragraph 2.F.(1) of SB TFE731-72-3159, Revision 5, dated September 6, 1985, or FAA-approved equivalent;

(2) Efface existing part number on duct and electrochemically etch new part number (0.0004 inch maximum depth) in accordance with:

OLD PART NO.	NEW PART NO.
3071486-3	3071486-11
3071486-4	3071486-12
3071486-5	3071486-13
3071486-6	3071486-14
3071486-7	3071486-15
3071486-8	3071486-16
3071486-9	3071486-17
3071486-10	3071486-18
3072318-1	3076070-1
3072318-3	3076070-2
3072726-1	3076070-3
3072726-2	3076070-4

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009 may adjust the compliance time specified in this AD.

Garrett SB Nos. TFE731-72-3309, Revision 1, dated September 6, 1985; TFE731-72-3159, Revision 5, dated September 6, 1985; and TFE731-72-3170, Revision 2, dated March 7, 1985, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Garrett General Aviation Service

Company, Department H65-1, Building 601AD, P.O. Box 29003, Phoenix, Arizona 85038.

These documents also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, Room 311, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on February 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Aerospace Engineer, Propulsion Section, ANM-174W, FAA Northwest Mountain Region, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1382.

FOKKER
Airworthiness Directive
Volume II

86-03-02 FOKKER B.V.: Amendment 39-5221. Applies to Model F28 airplanes as indicated in the applicability statement of each service bulletin listed below. Compliance is required within the next 120 days after the effective date of this airworthiness directive, unless already accomplished:

A. To prevent loss of the pilot and copilot restraint function of the safety harnesses, replace the inertia reel springs and mounting collars in accordance with Fokker Service Bulletin F28/25-93, dated June 4, 1984, and Teleflex Morse Limited Service Bulletin 25-00-185429, Issue 2, dated September 1983.

B. To ensure that instruction placards on the service/emergency door in emergency lighting conditions are legible, modify the emergency lighting system in accordance with Fokker Service Bulletin F28/33-32, dated September 17, 1984.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

D. Special flight permits may be used in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Manager, Maintenance and Engineering, Fokker B.V., Product Support, P.O. Box 7600, 11172J Schiphol Oost, The Netherlands. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective February 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Mark E. Baldwin, Standardization Branch, ANM-113; telephone (206) 431-2978. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-03-03 PRATT & WHITNEY: Amendment 39-5219. Applies to Pratt & Whitney model JT9D-7R4D, 7R4E, and -7R4E4 turbofan engines.

Compliance is required as indicated unless already accomplished.

To prevent deterioration of fuel nozzle flow and spray cone angle characteristics which could lead to engine surge, overtemperature, or the inability to restart inflight, accomplish the following:

(a) Conduct a flow check on JT9D-7R4 series engine incorporating PW P/N 792842 and/or 794731 fuel nozzles following any on-wing cleaning procedure prior to returning the aircraft to service in accordance with PW Maintenance Manual P/N 785050, Chapter 73-13-07, Cleaning/Painting Section as revised by Temporary Revision 73-3, or FAA approved equivalent.

(1) A flow reduction of 10 percent or less is acceptable.

(2) A flow reduction greater than 10 percent but less than 20 percent requires selected fuel nozzles to be replaced with new or ultrasonically cleaned nozzles within 300 flight cycles. The fuel nozzles may be replaced in quantities and locations as needed to restore the flow to 10 percent flow reduction or less.

(3) A flow reduction of 20 percent or greater requires selected fuel nozzles to be replaced with new or ultrasonically cleaned nozzles within 25 flight cycles. If there have been any unresolved aborted ground starts (since the last cleaning and flow check) that are not attributed to an ignition system fault or a mechanical problem which is unrelated to the fuel nozzles, fuel nozzles must be selectively replaced within 5 cycles. The fuel nozzles may be replaced in quantities and locations as needed to restore the flow to 10 percent flow reduction or less.

(b) Ground starts must be initiated using single ignition, either ignition selector position 1 or 2. If an aborted start is experienced using single ignition that is related to a fuel nozzle problem, the engine may be started on the opposite ignition system or dual ignition and the fuel nozzles must be cleaned and flow checked within 25 flight cycles in accordance with PW Maintenance Manual P/N 785050, Chapter 73-13-07, Cleaning/Painting Section as revised by Temporary Revision 73-3, or FAA approved equivalent.

The flow check limits in Paragraph (a) are applicable to Paragraph (b).

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, may adjust the compliance time specified in this AD.

PW Maintenance Manual P/N 785050, Chapter 73-13-07, Cleaning/Painting Section as revised by Temporary Revision 73-3 is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552 (a)(1). (Boeing Maintenance Manual, Chapter 73-11-05, Cleaning/Painting Section is an equivalent means of compliance.) All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Pratt & Whitney, Commercial Products Division, 400 Main Street, East Hartford, Connecticut 06108. This document also may be examined at the Office of the Regional Counsel, Rules Docket 85-ANE-8, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on March 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Diane Kirk, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617)273-7082.

86-03-04 FOKKER B.V.: Amendment 39-5220. Applies to Model F27 airplanes, certificated in any category, serial numbers 10102 to 10642 inclusive, and 10644. Compliance required within 60 days after the effective date of this AD, unless already accomplished:

A. To prevent unselected flap extension, isolate the prestall warning power supply wires from the flap down limit switch in accordance with Fokker Service Bulletin F27/34-52, dated March 23, 1983.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Manager, Maintenance and Engineering, Fokker B.V., Product Support, P.O. Box 7600, 11172J Schiphol Oost, The Netherlands. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective February 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Mark E. Baldwin, Standardization Branch, ANM-113; telephone (206) 431-2978. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-03-05 MITSUBISHI HEAVY INDUSTRIES, LTD. (Nihon Aeroplane Manufacturing Company (NAMC)): Amendment 39-5233. Applies to Model YS-11/-11A series airplanes, certificated in any category.

Compliance required as indicated, unless already accomplished.

To prevent failure of any bolt attaching the vertical stabilizer front spar fitting to the fuselage, accomplish the following:

A. Within 150 hours time-in-service after the effective date of this AD, remove and replace bolts, part numbers MS 20010-32, with new bolts (same part number) in the vertical stabilizer fitting assembly right-hand and left-hand, part numbers 01-38101-11 and -12, at Fuselage Station 8554, in accordance with Mitsubishi Heavy Industries, Ltd., NAMC Alert Service Bulletin No. A53-69, dated September 10, 1985.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager of the Western Aircraft Certification Office, FAA, Northwest Mountain Region, Hawthorne, California.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to ferry aircraft to a maintenance base in order to comply with the requirements of this AD.

All persons affected by this AD who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Mitsubishi Heavy Industries, Ltd., 10 Oye-Cho, Minato-ku, Nagoya, Japan. These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at Western Aircraft Certification Office, 15000 Aviation Boulevard, Hawthorne, California.

This amendment becomes effective February 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles Richard, Aerospace Engineer, Airframe Section, ANM-172W, Western Aircraft Certification Office, Northwest Mountain Region, FAA, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1374.

T86-02-52 PRATT & WHITNEY: Telegram issued January 29, 1986. This TAD is issued and made applicable to Pratt & Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR turbofan engines overhauled by Aerothrust Corporation of Miami, Florida, with the following serial numbers:

648779	654034	657429	667109	688132
649019	654072	657480	667127	688418
649120	654344	657591	667130	688440
649218	654595	657699	667144	688441
649255	654799	657714	667203	688444
649281	654806	657742	667204	688445
649283	654857	665873	667216	688473
649285	654909	666661	674268	688504
649347	654975	666685	674465	688505
649581	655366	666716	674564	688509
649655	655813	666738	674611	688839
653453	655920	666764	687309	688844
653509	655967	666804	687323	689877
653512	656047	666850	687413	689935
653526	656089	666853	687715	696688
653571	656120	666878	687727	696720
653645	656854	666976	687806	702937
653699	656975	666980	687836	702938
653838	657066	666989	687840	702975
653854	657112	666993	687841	
653992	657201	667042		
653996	657258	667059		

Compliance required as indicated unless already accomplished. To prevent uncontained rupture of the outer combustion case due to cracking and failure of the combustion chamber causing hot gases to impinge on the case wall, accomplish the following:

NOTES: 1) For the initial inspection, time since inspection (TSI) is defined as hours or cycles since installation by Aerothrust. Thereafter, for the repetitive inspections, TSI is defined as hours or cycles since the last inspection.

2) For the initial inspection, the cumulative crack length at the 2-3 seam weld is that present at the time of installation by Aerothrust as determined by individual chamber X-ray film records on file at Aerothrust. Thereafter, for repetitive inspections the cumulative crack length is that

defined by the last inspection or at installation by Aerothrust, whichever crack length is greater.

3) Investigation is continuing and, pending the results, additional engine serial numbers may be added to this AD.

Borescope inspect combustion chamber 2-3 seam welds in accordance with Pratt & Whitney Service Bulletin Number 5639, dated November 15, 1985, or FAA approved equivalent, and remove as required per the following schedule:

A. Remove from service within the next 100 hours or 100 cycles time in service after receipt of this telegraphic AD, whichever occurs first, chambers with greater than 8 inches but less than or equal to 12 inches cumulative crack length at installation by Aerothrust.

B. Remove from service prior to further flight, chambers with greater than 12 inches cumulative crack length at installation by Aerothrust.

C. Inspect chambers with 3 inches or less cumulative crack length in accordance with paragraphs 1 or 2 below, whichever occurs later:

1. Prior to accumulating 2,000 hours or 1,500 cycles TSI, whichever occurs first; or

2. Within the next 100 hours or 100 cycles time in service after receipt of this telegraphic AD, whichever occurs first.

D. Inspect chambers with greater than 3 inches but less than or equal to 6 inches cumulative crack length in accordance with paragraphs 1 or 2 below, whichever occurs later:

1. Prior to accumulating 1,500 hours or 1,000 cycles TSI, whichever occurs first; or

2. Within the next 100 hours or 100 cycles time in service after receipt of this telegraphic AD, whichever occurs first.

E. Inspect chambers with greater than 6 inches but less than or equal to 8 inches cumulative crack length in accordance with paragraphs 1 or 2 below, whichever occurs later:

1. Prior to accumulating 250 hours or 200 cycles TSI, whichever occurs first; or

2. Within the next 100 hours or 100 cycles time in service after receipt of this telegraphic AD, whichever occurs first.

F. Chambers with cumulative crack length at installation as prescribed in paragraph C, D, or E above, but with hours or cycles equal to or greater than the initial inspection threshold TSI must be inspected within the next 100 hours or 100 cycles time in service, after receipt of this telegraphic AD.

G. Chambers for which the cumulative crack length at installation by Aerothrust cannot be confirmed, must be inspected within the next 100 hours or 100 cycles time in service after receipt of this telegraphic AD, whichever occurs first.

H. Reinspect chambers, thereafter, in accordance with the appropriate inspection interval of paragraph C, D, or E above as determined by the crack length at last inspection or at

installation by Aerothrust, whichever crack length is greater. Remove from service, prior to further flight, any chambers with greater than 8 inches cumulative crack length at reinspection.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the telegraphic AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this telegraphic AD may be approved by the Manager, Engine Certification Office, New England Region.

Upon submission of substantiating data by an owner or operator through a Federal Aviation Administration Maintenance Inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this telegraphic AD.

This telegraphic AD supersedes TAD T85-17-51 R1 for the engines affected by this TAD, and this TAD supersedes TAD T86-02-51.

This telegraphic AD becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

James Jones, Engine Certification Branch, ANE-141, Engine Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7121.

T86-02-53 BOEING: Telegram issued January 31, 1986. Applicable to Boeing Model 747 series airplanes, certificated in any category. To prevent rupture of the fuselage skin, accomplish the following, unless previously accomplished:

A. For airplanes that have accumulated 14,000 landings or more, within 25 landings after receipt of this AD, perform an external close visual inspection of the fuselage skin lap splice at stringer 23 and the fuselage skin along stringer 24A between body stations 240 and 400 on both the left and right side of the fuselage. Repeat the inspections thereafter at intervals not to exceed 60 landings. Note per MSG-3 definition of close visual (detailed) inspection method: Close intensive visual inspections of highly defined structural details or locations searching for evidence of structural irregularity. Adequate lighting and, where necessary, inspection aids such as mirrors, etc., surface cleaning and access procedures may be required to gain proximity.

B. For airplanes that have accumulated 10,000 landings but less than 14,000 landings, within 50 landings after the effective date of this AD, perform an external close visual inspection of the fuselage skin lap splice at stringer 23 and the fuselage skin along stringer 24A between body station 240 and 400 on both the left and right side of the fuselage. Repeat the inspections thereafter at intervals not to exceed 120 landings.

C. If the fuselage skin is found cracked, a visual inspection for cracks of the frames from stringer 20 to stringer 28 from fuselage station 240 to 440 on both sides of the airplane must be made before further flight.

D. Airplanes which have had the frames visually inspected in this area within the last two years need not comply with this AD.

E. Cracked parts must be replaced or repaired prior to further flight in accordance with FAA approved data.

F. Alternate means of compliance with this AD which provides an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

G. For purposes of complying with this AD, subject to acceptance by the assigned FAA Maintenance Inspector, the number of landings may be determined by dividing each airplane's time in service by the operator's fleet average from takeoff to landing for the airplane type.

H. Aircraft may be ferried unpressurized to a base for maintenance in accordance with Sections 21.197 and 21.199 of the Federal Aviation Regulations.

I. Upon request of the operator, an FAA Maintenance Inspector, subject to prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the repetitive inspection intervals specified in this AD to permit compliance at an established inspection period of an operator, if the request contains substantiating data to justify the adjustment period.

J. If cracks are found as a result of the inspections required by paragraphs A. and B. above, report the findings within 48 hours to Mr. Owen Schrader, Airframe Branch, ANM-120S, FAA, Northwest Mountain Region, at telex number 756366. (Reporting approved by the Office of Management and Budget under OMB No. 2120-1156.)

NOTE: This AD will be revised to require further inspections when additional information becomes available.

This telegraphic airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Owen Schrader, Airframe Branch, ANM-120S, FAA, Northwest Mountain Region, Seattle Aircraft Certification Office, Seattle, Washington; telephone (206) 431-2925.

85-23-07 KING RADIO CORPORATION: Amendment 39-5217. Applies to Models KFC 150, KAP 150 and KAP 100 autopilot systems which use the following flight computers and are certificated to the applicable requirements of Technical Standard Orders C9c and C52a (*):

MODEL	PART NO.	SERIAL NO.
KC 190	065-0055-00	all serial numbers
	065-0055-01	all serial numbers
	065-0055-02	1474 and below
	065-0055-03	10095 and below
KC 191	065-0054-00	all serial numbers
	065-0054-01	all serial numbers
	065-0054-02	20754 and below
	065-0054-03	30227 and below
	065-0054-04	20754 and below
	065-0054-05	30227 and below
KC 192	065-0042-00	all serial numbers
	065-0042-01	all serial numbers
	065-0042-02	40614 and below
	065-0042-03	50464 and below
	065-0042-04	40614 and below
	065-0042-05	50464 and below

(*) Units with serial numbers above those stated comply with this AD at time of shipment from King Radio Corporation.

Compliance: Required as indicated unless already accomplished.

To prevent undetected trim malfunctions that may result in significant mistrim conditions, accomplish the following:

(a) For affected flight computers not installed in an aircraft, prior to further use, modify the computer in accordance with the instructions contained in King Radio Corporation Alert Service Bulletin KC 190/191/192-9 dated November 6, 1985.

(b) For affected flight computers installed in the following airplanes:

AIRCRAFT MAKE AND MODEL	STC NUMBER
Mooney M20J, M20K	SA1561CE-D
Piper PA-28RT-201, PA-28RT-201T	SA1563CE-D
Piper PA-28-161, PA-28-181, PA-28-236	SA1565CE-D
Piper PA-32-301, PA-32-301T	SA1567CE-D
Cessna 172RG	SA1568CE-D
Cessna U206G, TU206G (Landplane, Seaplane, and Amphibian)	SA1569CE-D
Cessna 172P	SA1570CE-D
Cessna R182, TR182	SA1571CE-D
Piper PA-32R-301, PA-32R-301T	SA1572CE-D
Beech A36, A36TC, B36TC	SA1574CE-D
Piper PA-34-200T, PA-34-220T	SA1575CE-D
Cessna 182P, 182Q, 182R, T182	SA1770CE-D
Cessna 172L S/N 17256631	SA1772CE-D
Piper PA-46-310P	SA1778CE-D
Reims-Cessna FR182	SA1783CE-D
Partenavia AP68TP 300	SA1784CE-D
SOCATA TB20	SA1785CE-D
Beech F33A	SA1789CE-D
Partenavia P68C, P68C-TC	SA1791CE-D
Reims-Cessna F182P, F182Q	SA1794CE-D
Cessna 210R, T210R	SA2050CE-D

(1) Within the next 10 hours time-in-service (TIS) after the effective date of this AD, deactivate the autopilot and electric trim by pulling the respective circuit breakers and banding by placing a tie wrap or equivalent around the circuit breaker stem.

(2) Fabricate and install on the instrument panel in clear view of the pilot the following placard using letters of a minimum 0.10 inch in height: "AP AND ELECTRIC TRIM INOPERATIVE PER AD 85-23-07" and operate the aircraft accordingly.

(3) Within 50 hours TIS or 120 calendar days, whichever comes first, after the effective date of this AD, modify the flight computer in accordance with the instructions contained in King Radio Corporation Alert Service Bulletin KC 190/191/192-9 dated November 6, 1985.

(4) The requirements of paragraphs (b)(1) and (b)(2) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FARs) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(5) The requirements of paragraphs (b)(1) and (b)(2) of this AD are no longer required when paragraph (b)(3) of this AD has been accomplished.

(c) For affected flight computers installed in the following airplanes:

AIRCRAFT MAKE AND MODEL	STC NUMBER
Piper PA-60-700P	SA1777CE-D

(1) Within the next 10 hours TIS after the effective date of this AD, deactivate the autopilot by pulling the respective circuit breaker and banding open by placing a tie wrap or equivalent around the circuit breaker stem.

(2) Fabricate and install on the instrument panel in clear view of the pilot the following placard using letters of a minimum 0.10 inch in height: "AP INOPERATIVE PER AD 85-23-07", and operate the aircraft accordingly.

(3) Within 50 hours TIS or 120 calendar days, whichever comes first, following the effective date of this AD, modify the flight computer in accordance with the instructions contained in King Radio Corporation Alert Service Bulletin KC190/191/192-9 dated November 6, 1985.

(4) The requirements of paragraphs (c)(1) and (c)(2) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FARs) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(5) The requirements of paragraphs (c)(1) and (c)(2) of this AD are no longer required when paragraph (c)(3) of this AD has been accomplished.

(d) The modification requirements of paragraphs (b)(3) and (c)(3) of this AD must be accomplished by an appropriate FAA certified radio repair station.

(e) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where this AD can be accomplished.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to King Radio Corporation, 400 North Rogers Road, Olathe, Kansas 66062, or the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective January 27, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 85-23-07, issued November 20, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Ralph W. Rissmiller, Jr., Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

85-24-04 CESSNA AIRCRAFT COMPANY: Amendment 39-5231. Applies to Cessna Model S550 airplanes, Unit Numbers -0001 through -0075, certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent hazardous accumulation of ice on the inboard wing leading edge during flight in icing conditions, accomplish the following:

A. Prior to further flight:

1. Fabricate and install on the instrument panel in clear view of the pilot the following placard, using letters of a minimum of 0.10 inch in height: "FLIGHT INTO KNOWN OR FORECAST ICING PROHIBITED" and operate the airplane accordingly.

2. Revise the Airplane Flight Manual, Section II, Operating Limitations - Operations Authorized, to read: "This airplane is approved for day and night, VFR, IFR flight. Flight into known or forecast icing conditions prohibited." This may be accomplished by inserting a copy of this AD in the Airplane Flight Manual.

B. Within the next 15 flight hours or 15 days after the effective date of this AD, whichever occurs first, inspect and replace, as necessary, the fluid ice protection system proportioning units as described below:

1. Locate the fluid anti-ice proportioning units as follows:

a. Remove the access panel from the lower surface of the left wing root leading edge fairing to gain access to the left outboard wing proportioning unit.

b. Remove the right wing root leading edge fairing to gain access to the right outboard wing and left and right inboard wing-engine proportioning units.

c. Remove access panel 340BL or 340BR (located below the horizontal stabilizer on the vertical stabilizer) to gain access to the tail proportioning unit.

2. Locate the identification plate installed on each proportioning unit and identify that the correct part number proportioning unit is installed in the proper location (refer to TABLE 1, below).

TABLE 1
PROPORTIONING UNIT PART NUMBER/LOCATION

PART NUMBER	LOCATION
PU306DW38	Left and Right Wing Root (Left and Right Outboard Wing)
PU306DC39	Right Wing Root (Left and Right Inboard Wing-Engine)
PU306DT41	Vertical Stabilizer (Tail)

Refer to Model S550 Maintenance Manual, Revision 30-1, dated May 1, 1985, for detailed installation information.

3. If the correct part number proportioning units are installed in all locations, reinstall all access plates using existing hardware and make an entry in the aircraft maintenance record indicating that the requirements of this AD have been complied with.

4. If the incorrect part number proportioning unit(s) is installed in any location(s), remove and replace the proportioning unit(s) with the correct part number proportioning unit. Refer to the Model S550 Maintenance Manual, Revision 30-1, dated May 1, 1985, Chapter 30, Removal/ Installation Proportioning Unit, for removal and replacement instructions.

C. Within 5 days after the required inspection, report any defects found to the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

D. The requirements of paragraphs A.1. and A.2., above, may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

E. The requirements of paragraphs A.1. and A.2., above, are no longer required after the requirements of paragraph B. of this AD have been accomplished.

F. Airplanes may be flown in accordance with FAR 21.197 and 21.199 to a location where the inspection/modification requirements of the AD can be accomplished.

G. Alternate means of compliance with this AD which provide an acceptable level of safety may be used if approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Cessna Aircraft Company, P.O. Box 7704, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central

Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

This Amendment becomes effective February 24, 1986, as to all persons, except those persons to whom it was made immediately effective by Priority Letter AD 85-24-04, issued December 3, 1985.

FOR FURTHER INFORMATION CONTACT:

Ralph W. Rissmiller, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

KING
Airworthiness Directive
Final Copy of Letter
Volume II

85-25-02 KING RADIO CORPORATION: Amendment 39-5218. Applies to Models KFC 200, KFC 150, KAP 150 and KAP 100 autopilot systems utilizing Model KS 177 pitch servo, P/N 065-0050-04 and -012 and/or Model KS 178 roll servo, P/N 065-0051-01 and -02, S/N 2461 and below. These autopilot systems have been installed in accordance with Supplemental Type Certificates (STC) shown in the following table. Some airplane logbooks may not show evidence of the STC number:

AUTOPILOT MODEL	AIRPLANE MODEL	STC	AXIS AFFECTED
KFC 200	Mooney M20J, M20K	SA1771CE-D*	pitch and roll
KFC 150, KAP 150	Mooney M20J, M20K	SA1561CE-D	pitch and roll
KAP 100	Mooney M20J, M20K	SA1561CE-D	roll
KFC 150, KAP 150	SOCATA Model TB-20	SA1785CE-D	pitch

*NOTE: KFC 200 installations in Mooney Models M20J, S/N 24-1418 and earlier except S/N 24-1368, and M20K, S/N 25-0790 and earlier except S/N .25-0740, airplanes (STCs SA1212CE and SA1464CE) are not affected by this AD.

Compliance: Required as indicated unless already accomplished.

To prevent loss of primary pitch and/or roll control, accomplish the following:

(a) Within the next 5 hours time-in-service or within the next 10 calendar days after the effective date of this AD, whichever occurs first, modify the affected servo actuator(s) to provide for safetying of the cable guard attaching hardware in accordance with King Radio Alert Service Bulletin KS 177/178-3 dated December 4, 1985, as supplemented. (These servos are used on all affected KFC 150, KAP 150, and KAP 100, as well as some KFC 200 ((see NOTE above)) installations.)

(b) Aircraft may be flown in accordance with Federal Aviation Regulation (FAR) 21.197 to a location where this AD can be accomplished.

(c) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to King Radio Corporation, 400 North Rogers Road, Olathe, Kansas 66062, or

the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective January 27, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 85-25-02, issued December 11, 1985, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Ralph W. Rissmiller, Jr., Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

CESSNA
Airworthiness Directive
Final Copy of Letter
Volume II

85-25-10 CESSNA AIRCRAFT COMPANY: Amendment 39-5224. Applies to Cessna Model S550 and 552 airplanes, with unit numbers identified below, certificated in any category.

MODEL	UNIT NUMBERS
S550	0001 thru 0048, 0051 thru 0075, 0077, and 0079
552	-0001 thru -0015

Compliance is required as indicated, unless already accomplished.

To prevent hazardous accumulation of ice on the wing leading edge and horizontal stabilizer during flight in icing conditions, accomplish the following:

A. Prior to further flight:

1. Fabricate and install on the instrument panel, in clear view of the pilot, the following placard, using letters of a minimum of 0.10 inch in height: "FLIGHT INTO KNOWN OR FORECAST ICING PROHIBITED," and operate the airplane accordingly.

2. Revise the Airplane Flight Manual, Section II, Operating Limitations - Operations Authorized to read: "This airplane is approved for day and night, VFR, IFR flight. Flight into known or forecast icing conditions prohibited." This may be accomplished by inserting a copy of this AD in the Airplane Flight Manual.

B. Within the next 15 flight hours or 15 days after the effective date of this AD, whichever occurs first, inspect and modify, as necessary, the fluid ice protection system left and right inboard wing installation in accordance with Accomplishment Instruction A. of Cessna Alert Service Letter SLAS550-30-05, dated December 17, 1985.

C. Within the next 25 flight hours or 30 days after the effective date of this AD, whichever occurs first, inspect and modify, as necessary, the fluid ice protection system left and right outboard wing and horizontal stabilizer installations in accordance with Accomplishment Instructions B. and C. of Cessna Alert Service Letter SLAS550-30-05, dated December 17, 1985.

D. Within 5 days after the required inspection, report any defects found to the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

E. The requirements of paragraphs A.1. and A.2., above, may be accomplished by the holder of a pilot certificate issued

under Part 61 of the Federal Aviation Regulations (FAR) on any airplanes owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

F. The requirements of paragraphs A.1. and A.2., above, are terminated upon the accomplishment of paragraphs B. and C. of this AD.

G. Airplanes may be flown in accordance with FAR 21.197 and 21.199 to a location where the inspection/modification requirements of the AD can be accomplished.

H. Alternate means of compliance with this AD which provides an acceptable level of safety may be used if approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Cessna Aircraft Company, P.O. Box 7704, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, FAA, Central Region, 1803 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas.

This amendment becomes effective February 11, 1986, as to all persons, except those persons to whom it was made immediately effective by priority letter AD 85-25-10, issued December 17, 1985.

FOR FURTHER INFORMATION CONTACT:

Ralph W. Rissmiller, Jr., Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

BOEING
Airworthiness Directive
Revision
Volume II

83-21-02 R1 BOEING: Amendment 39-4745 as amended by Amendment 39-5215. Applies to those Model 747 series airplanes certificated in all categories listed in Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision. To prevent failure of the trailing edge flap tracks, accomplish the following:

A. Inspect the external surface of the trailing edge flap tracks visually for cracks or corrosion penetration within the threshold landings set forth in Table I after the effective date of this AD, and thereafter at the repetitive intervals not to exceed those shown in Table I, below, in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision. These external visual inspections are to continue until the modifications of paragraph D are accomplished.

TABLE I

EFFECTIVITY AIRPLANE LINE NO.	THRESHOLD FOR INITIAL INSPECTIONS	REPETITIVE INSPECTION INTERVALS	
		During the initial 250 landings after effective date of of the AD.	During the 251 thru 500 landings after the effective date of the AD.
001-400 (Group I)	50 Landings	50 Landings	30 Landings
401-584 (Group II)	100 Landings	100 Landings	100 Landings

B. If any cracks are found in any flap track, replace the cracked track before further flight. This replacement criterion applies to all future inspections required by this AD.

C. If any corrosion pits, which have completely penetrated the track web, are visible on the outside of any track web, perform a repeat visual external inspection for cracks in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision, at intervals not exceeding 30 landings. Replace the track within 200 landings after discovery of the corrosion pits, or before further flight if a crack is found. These replacement criteria apply to all future inspections required by this AD.

D. If there are not visible track web cracks and no corrosion pits through either web, modify by drilling the 5/8-inch diameter drain holes in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision, within 500 landings or six months after the effective date of this AD, whichever occurs first. Flush the track cavity per instructions in the Service Bulletin.

NOTE: Airplane Flap Tracks previously modified by a single 3/8-inch diameter drain hole must still be modified in accordance with the requirements of this paragraph.

E. Concurrent with the modifications of paragraph D., above, perform an internal borescope inspection of the flaptrack in accordance with procedures defined in Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA-approved revision, to determine if corrosion exists. If corrosion or pitting is found, determine its extent by accomplishing the track web X-ray inspection specified in the service bulletin.

1. Perform repeat external inspections for cracks or corrosion penetration through track webs at the intervals shown in the following Table II:

TABLE II

Maximum Flap Setting Used For landings	Internal Corrosion Classification (b)	Maximum External Inspection Intervals (Landings)	
		Visual Inspection	Magnetic Particle or Penetrant Inspection
25°(a)	Heavy	200	250
	Moderate	400	450
	Light	800	850
30°	Heavy	50	65
	Moderate	100	115
	Light	250	265

(a) Quadrant and alternate extension system must be modified to block off selection of flaps 30 degrees.

(b) Classification terms are defined in Paragraph G. of the Accomplishment Instructions of the referenced service bulletin.

F. Repeat the X-ray inspection specified in paragraph E., above, in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA-approved revision, on tracks indicating medium or light internal web corrosion at intervals not exceeding one year or until heavy web corrosion is indicated, whichever occurs first. This twelve month

inspection interval may be extended to fifteen months, provided a monthly repeat visual inspection is initiated at the twelfth month and continued until the X-ray inspection is accomplished. When the classification of the internal corrosion changes then the inspection interval changes as indicated in paragraph E.1., above. If the previous two X-ray inspections show that corrosion progression has been arrested, the X-ray reinspection interval may be increased from 12 to 24 months until subsequent X-ray inspections indicate noticeable corrosion progression. At that time, the interval for X-ray inspection shall revert to 12 months.

G. Apply organic corrosion inhibitor (BMS 3-23 or equivalent) to the aft cavity of each flap track after the borescope inspection of paragraph E. and at intervals not exceeding 6 months in accordance with Boeing Alert Service Bulletin 747-57A2225, Revision 1, or later FAA approved revision.

H. For purposes of complying with this AD, subject to acceptance by the assigned FAA Principal Maintenance Inspector, the number of landings may be determined by dividing each airplane's hours time in service by the operator's fleet average from takeoff to landing for the airplane type.

I. Upon request of the operator, a FAA Principal Maintenance Inspector, subject to prior approval by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection interval, if the request contains substantiating data to justify the increase for that operator.

J. Special flight permits may be issued in accordance with Section 21.197 and 21.199 of the Federal Aviation Regulations to operate airplanes to a base for the accomplishment of the inspections and/or modifications required by the AD.

K. Alternate means of compliance or other actions which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-4745 became effective October 27, 1983.

This Amendment 39-5215 becomes effective February 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-69866, Seattle, Washington 98168.

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84-09-51 Lockheed
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84-19-01 Boeing
84-19-02 Boeing - Supersedes AD 76-03-06
84-19-06 Gates Learjet
84-19-07 British Aircraft (British Aerospace)
Correction Pratt & Whitney - Corrects AD 84-16-03
Revision Sikorksy - Revises AD 74-20-07

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84-20-03 Boeing
84-20-04 DeHavilland (British Aerospace)
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84-20-06 Gates Learjet
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84-25-01 Sikorsky - Supersedes AD 83-17-04
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84-20-51 Garrett
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ISSUE 84-26
84-26-01 McDonnell Douglas
84-26-03 CFM International, SA
Correction McDonnell Douglas - Corrects AD 84-24-03
Revision Boeing - Revises AD 79-17-04
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85-01-02 McDonnell Douglas - Supersedes AD 80-10-03
85-01-03 McDonnell Douglas - Supersedes AD 74-16-02
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Correction Kidde and Overland - Corrects AD 84-18-07
Revision British Aerospace - Revises AD 84-21-01

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85-04-01 Fairchild - Supersedes AD 83-19-02
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Revision British Aerospace - Revises AD T85-05-51

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Summary of Airworthiness Directives for Large Aircraft Volume II, Book 2. Cessna Aircraft: Remove old pages 1, 2, and 3 - insert new pages 1, 2, and 3.

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Revision British Aerospace - Revises AD 83-24-10

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T85-11-51 SAAB Fairchild
Correction Boeing - Corrects AD 79-17-04

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85-12-02 Pratt & Whitney
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85-13-02 Boeing
Revision Canadair - Revises AD 84-13-03

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85-17-01 Boeing
85-17-02 McDonnell Douglas
85-17-05 Boeing
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Revision Boeing - Revises AD 84-11-02

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85-19-02 McDonnell Douglas - Supersedes AD 80-09-07
85-19-03 McDonnell Douglas
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T85-19-51 Pratt & Whitney

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85-20-02 Lockheed
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85-21-03 McDonnell Douglas
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85-11-51 Saab-Scania AB Saab-Fairchild
Revision Fairchild – Revises AD 85-04-01

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85-22-01 McDonnell Douglas
85-22-02 Boeing
85-22-03 McDonnell Douglas and Airbus Industrie
85-22-04 Gates Learjet
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85-23-02 Boeing
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T85-23-51 Boeing Vertol
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85-24-01 McDonnell Douglas
85-24-02 Boeing
85-24-04 Cessna
T85-24-51 Saab Fairchild
Correction Gates Learjet - Corrects AD 85-22-04
Revision Boeing - Revises AD 83-15-05
Revision Pratt & Whitney - Revises AD 85-19-51 - Supersedes AD 84-16-03

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85-25-03 Sikorsky
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T85-26-51 Saab-Fairchild - Supersedes AD T85-25-57 and AD T85-25-57 - Superseded AD T85-24-51 and AD T85-25-52
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86-01-06 Parker Hannifin
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Revision McDonnell Douglas - Revises AD 85-19-03
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86-02-01 Boeing
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T86-02-51 Pratt & Whitney
Revision Boeing - Revises AD 85-03-06
Revision Gates Learjet - Revises AD 85-22-08

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86-03-01 Garrett
86-03-02 Fokker
86-03-03 Pratt & Whitney
86-03-04 Fokker
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T86-02-52 Pratt & Whitney - Supersedes AD T86-02-51
T86-02-53 Boeing
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Revision Boeing - Revises AD 83-21-02

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86-04-01 Pratt & Whitney
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86-04-06 Fokker
83-04-07 British Aerospace
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T86-03-51 Boeing - Supersedes AD T86-02-53
Correction - Short Brothers - Corrects AD 84-24-52
Correction - Gates Learjet - Corrects AD 85-22-04

86-04-01 PRATT & WHITNEY: Amendment 39-5236. Applies to Pratt & Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR turbofan engines.

Compliance is required as indicated unless already accomplished.

To prevent crack propagation and subsequent combustion chamber outer case rupture, visually inspect in accordance with Paragraph f) below, combustion chamber outer case assembly Part Numbers 490547, 542155, 616315, 728829, 730413, 730414, 767197, and 767279, for rear flange cracks as follows:

For cases with total cycles in service on the effective date of this AD of 35,000 cycles or more for JT8D-1, -1A, -1B, -7, -7A, and -7B engines, 30,000 cycles or more for JT8D-9, -9A, and -11 engines, or 25,000 cycles or more for JT8D-15, -15A, -17, -17A, -17R, and -17AR engines, comply with Paragraphs a) through e) within the next 200 cycles in service.

For cases with total cycles in service on the effective date of this AD of less than 35,000 cycles for JT8D-1, -1A, -1B, -7, -7A, and -7B engines, less than 30,000 cycles for JT8D-9, -9A, and -11 engines, or less than 25,000 cycles for JT8D-15, -15A, -17, -17A, -17R, and -17AR engines, comply with Paragraphs a) through e) before the accumulation of 35,200 total cycles, 30,200 total cycles, or 25,200 total cycles in service, respectively.

a). Inspect cases installed on PW JT8D-1, -1A, -1B, -7, -7A, and -7B engines, unless already accomplished within the last 2,800 cycles in service, and thereafter, reinspect at intervals not to exceed 3,000 cycles in service, since last inspection.

b). Inspect cases installed on PW JT8D-9, -9A, and -11 engines, unless already accomplished within the last 1,800 cycles in service, and thereafter, reinspect at intervals not to exceed 2,000 cycles in service, since last inspection.

c). Inspect cases installed on PW JT8D-15, and -15A engines, unless already accomplished within the last 1,300 cycles in service, and thereafter, reinspect at intervals not to exceed 1,500 cycles in service, since last inspection.

d). Inspect cases installed on PW JT8D-17, -17A, -17R, and -17AR engines, unless already accomplished within the last 800 cycles in service, and thereafter, reinspect at intervals not to exceed 1,000 cycles in service, since last inspection.

e). Remove cracked cases from service prior to further flight.

f). Inspect by inserting an extended mirror through the tailpipe, and with a white light, examine the case wall within

3 inches of the rear flange and 360 degrees circumferentially around the case adjacent to the rear flange for cracks.

Notes: 1) Inspection of the case rear flange at shop visit by visual or fluorescent penetrant inspection is considered an equivalent means of inspection for the purposes of this AD.

2) Cases for which the total cycles in service cannot be determined from engine records or manufacturer's production records must be assigned a total cycle count equal to the highest cycle engine of that model in the owner/operators fleet for the requirements of this AD.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

This amendment becomes effective on February 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Jim Jones, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7121.

86-04-02 GARRETT TURBINE ENGINE COMPANY: Letter issued February 14, 1986. Pursuant to the authority of the Federal Aviation Act of 1958, delegated to me by the Administrator, this priority letter AD is issued and made applicable to Garrett Turbine Engine Company Model TFE731-2, -3 and -3R turbofan engines.

Compliance required as indicated unless already accomplished.

To prevent failure of the fan rotor discs, Garrett Part Numbers 3073436-1/-2/-3 and 3072162-1/-2/-3, accomplish the following:

(A) For fan rotor discs with 4000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service before reaching 4100 total operating cycles.

(B) For fan rotor discs with more than 4000 but with 6000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service within the next 100 operating cycles or prior to reaching 6005 total operating cycles whichever occurs first.

(C) For fan rotor discs with more than 6000 but with 8000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service within the next 5 operating cycles or prior to reaching 8001 total operating cycles whichever occurs first.

(D) For fan rotor discs with more than 8000 operating cycles on the effective date of this AD, remove fan rotor disc from service prior to further flight.

(E) An operating cycle is considered as any engine operating sequence involving an engine start, at least one acceleration to 80 percent or more low pressure rotor speed and engine shutdown. An alternate method of determining cycles is to consider each airplane landing as one cycle. Fan rotor discs which have had their cyclic lives calculated by any other method are to have their cyclic lives recalculated using one of the two methods specified above.

NOTE: Fan rotor discs may be returned to GTEC for evaluation. Shipping information is contained in Garrett Alert Service Bulletin No. TFE731-A72-3328 Revision 1 dated February 17, 1986.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR's) 21.197 and 21.199 to a base where the AD can be accomplished. Upon request, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Propulsion Section, Aerospace Engineer, ANM-174W, Northwest Mountain Region, Western Aircraft Certification Office, Federal Aviation Administration, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007, telephone (213) 297-1382.

86-04-03 MCDONNELL DOUGLAS: Amendment 39-5227. Applies to Model DC-10 and KC-10A (Military) series airplanes, certificated in any category, which are listed in McDonnell Douglas DC-10 Service Bulletin 32-155, Revision 2, dated July 28, 1983, and Service Bulletin 32-198 dated January 17, 1984. Compliance required as indicated, unless previously accomplished. To minimize the potential operational hazard associated with the latent failure of the monitoring circuit of the antiskid system, accomplish the following:

A. Within the next 3,000 flight hours after the effective date of this AD, and thereafter at intervals not to exceed 3,000 flight hours, accomplish a parking brake shut-off valve monitoring circuitry test in accordance with McDonnell Douglas DC-10 Maintenance Manual Section 32-45-05.

B. Modifications listed below in paragraphs C. and D. are optional and constitute terminating action for this AD when incorporated.

C. Install a parking brake valve fault isolation relay in accordance with McDonnell Douglas DC-10 Service Bulletin 32-155, Revision 2, dated July 28, 1983, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Revise the antiskid control wiring in accordance with McDonnell Douglas DC-10 Service Bulletin 32-155, Revision 2, dated July 28, 1983, or Service Bulletin 32-198, dated January 17, 1984, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

E. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this proposal who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-750 (54-60). These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective March 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. E. F. Huettner, Aerospace Engineer, Systems & Equipment Branch, ANM-130L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 548-2831.

86-04-04 FOKKER B.V.: Amendment 39-5228. Applies to Fokker Model F28 airplanes, serial numbers 11003 to 11171 inclusive, 11991 and 11992, certificated in any category, equipped with Walter Kidde fire extinguishers, P/N 8900317, 892480, or 893948. Unless already accomplished, as indicated with an "x" punch stamped or "SB26.20.240" ink-stamped on the cartridge holder, accomplish the following within 60 days after the effective date of this AD:

A. To preclude the malfunctioning of these fire extinguishers, inspect the cartridge holders for proper internal dimension tolerances, and replace, if necessary, in accordance with Fokker Service Bulletin F28/26-12, dated September 28, 1981.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Manager, Maintenance and Engineering, Fokker B.V., Product Support, P.O. Box 7600, 11172J Schiphol Oost, The Netherlands, or Walter Kidde, S.E. Service Center, 3994 N.W. 27th Street, Miami, Florida 33142. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective March 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Mark E. Baldwin, Standardization Branch, ANM-113; telephone (206) 431-2978. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

FOKKER
Airworthiness Directive
Volume II

86-04-05 SAAB FAIRCHILD: Amendment 39-5229. Applies to Model SF-340A series airplanes as listed in each service bulletin cited below, certificated in any category. Compliance is required within 60 days after the effective date of this AD. To prevent moisture accumulation, accomplish the following, unless previously accomplished:

A. Modify the empennage deicer boot pneumatic system in accordance with SAAB-Fairchild Service Bulletin SF 340-30-008, Revision 1, dated February 11, 1985.

B. Modify the nacelle inlet protection device exhaust nozzle in accordance with SAAB-Fairchild Service Bulletin SF 340-54-002, Revision 1, dated April 3, 1985.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspection and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to SAAB-Fairchild Corporation, Product Support, S.58188, Linkoping, Sweden. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective March 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Harold N. Wantiez, Standardization Branch, ANM-113; telephone (206) 431-2977. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-04-06 FOKKER B.V.: Amendment 39-5230. Applies to Model F27 airplanes, serial numbers 10105 to 10635 inclusive, certificated in any category. Compliance is required within 180 days after the effective date of this AD, unless already accomplished:

A. To prevent restricted aileron movement or jamming, modify the aileron inboard hinge bolt installations in accordance with Fokker Service Bulletin F27/57-58, dated May 16, 1983.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the modification required by this AD.

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to the Manager, Maintenance and Engineering, Fokker B.V., Product Support, P.O. Box 7600, 11172J Schiphol Oost, The Netherlands. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective March 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Mark E. Baldwin, Standardization Branch, ANM-113; telephone (206) 431-2978. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BRITISH AEROSPACE
Airworthiness Directive
Volume II

86-04-07 BRITISH AEROSPACE: Amendment 39-5235. Applies to Model BAC 1-11 airplanes, with series as specified in each paragraph below, certificated in any category. To prevent a hazardous landing condition, accomplish the following within the next 90 days after the effective date of this AD, or prior to reaching the landing threshold indicated in each paragraph below, whichever is the later, unless already accomplished:

A. For Model BAC 1-11 400 series airplanes, prior to the accumulation of 15,000 landings, perform an eddy current or dye penetrant inspection for cracks of the rear pintle support beam in accordance with paragraph 2.1.1 of the accomplishment instructions of British Aerospace BAC 1-11 Alert Service Bulletin 57-A-PM5896, dated August 6, 1984. Thereafter, repeat this inspection at intervals not to exceed 3,200 landings. If cracks are discovered, repair or replace in accordance with paragraph 2.2 of the accomplishment instructions of the service bulletin before further flight.

B. For Model BAC 1-11 200 and 400 series airplanes, inspect for damage of the toggle links' special bolt assembly, part number AB44A1275, in accordance with the accomplishment instructions of British Aerospace BAC 1-11 Alert Service Bulletin 32-A-PM5872, dated July 25, 1983. If the special bolt assembly is found damaged, replace with a serviceable part before further flight.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to British Aerospace, Inc., Box 17414, Dulles International Airport, Washington, D.C. 20041. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective March 17, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Mark E. Baldwin, Standardization Branch, ANM-113; telephone (206) 431-2978. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-04-08 BOEING: Amendment 39-5238. Applies to Model 767 series airplanes, as specified in Boeing Service Bulletin 767-52-0029 dated August 2, 1985, certificated in any category.

To assure proper entry/service door operation during emergency evacuation, accomplish the following within nine months after the effective date of this AD, unless previously accomplished:

A. Modify the counterbalance gearbox assemblies in accordance with Boeing Service Bulletin 767-52-0029 dated August 2, 1985, or later FAA-approved revisions.

B. An alternate means of compliance which provides an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this proposal who have not already received copies of the manufacturer's service bulletin may obtain copies upon request from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective March 27, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Pliny Brestel, Aerospace Engineer, Airframe Branch, ANM-120S; telephone (206) 431-2931. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

T86-03-51 BOEING: Telegram issued February 16, 1986. Applicable to Boeing Model 747 series airplanes, certificated in any category. To detect body structure cracking in the nose section that could lead to decompression, accomplish the following, unless already accomplished:

A. For airplanes that have accumulated 14,000 landings or more, within 25 landings after receipt of this AD perform an external close visual inspection of the fuselage skin lap splice at stringer 23 and the fuselage skin along stringer 24A between body stations 240 and 400 on both the left and right side of the fuselage. Repeat the inspections hereafter at intervals not to exceed 60 landings until inspected in accordance with paragraph D, below.

NOTE: Per MSG-3, definition of close visual (detailed) inspection method: Close intensive visual inspections of highly defined structural details or locations searching for evidence of structural irregularity. Adequate lighting and, where necessary, inspection aids such as mirrors, etc., surface cleaning and access procedures may be required to gain proximity.

B. For airplanes that have accumulated 10,000 landings but less than 14,000 landings within 50 landings after the receipt of this AD, perform an external close visual inspection of the fuselage skin lap splice at stringer 23 and the fuselage skin along stringer 24A between body station 240 and 400 on both the left and right side of the fuselage. Repeat the inspections thereafter at intervals not to exceed 120 landings until inspected in accordance with paragraph D., below.

C. If the fuselage skin is found cracked as a result of the inspections required in paragraphs A. and B., above, a visual inspection for cracks of the frames from stringer 20 to stringer 28 from fuselage station 240 to 440 on both sides of the airplane must be made before further flight.

D. For airplanes, line number 88 through 603, perform a visual or X-ray inspection for cracking of the body structure and skins in the following areas: On the main deck between body stations 240 and 400 from the window belt to the floor, both left and right; between body stations 200 and 240 from stringer 13A to 14E, both left and right; and at the body station 360 frame web at stringer 3L in accordance with Boeing Service Bulletin 747-53A2265 dated February 14, 1986, or later FAA-approved revisions, in accordance with the following schedule:

1. On airplanes that have accumulated more than 14,000 landings as of the receipt of this AD, inspect within 100 landings after the receipt of this AD.

2. On airplanes that have accumulated 12,000 to 14,000 landings as of the receipt of this AD, inspect within 200 landings after the receipt of this AD.

3. On airplanes that have accumulated fewer than 12,000 landings as of the receipt of this AD, inspect within 400 landings after the receipt of this AD, or prior to the accumulation of 10,000 landings, whichever occurs later.

E. For airplanes, line numbers 1 through 87, perform a visual or X-ray inspection for cracking of the body structure and skins from body station 360 through 380 from stringer 23 to the main deck floor, in accordance with Boeing Service Bulletin 747-53A2265, dated February 14, 1986, or later FAA-approved revisions, in accordance with the schedule described in paragraph D., above.

F. Repeat the inspections required by paragraph D. and E., above, at the following intervals:

1. If the immediately prior inspection was accomplished using visual methods, perform the next inspection within the next 3,000 landings.

2. If the immediately prior inspection was accomplished using X-ray methods, perform the next inspection within the next 1,500 landings.

G. If any cracking is found, repair in accordance with FAA-approved procedures prior to further flight, unless the provisions of Section III, paragraph G, of Boeing Service Bulletin 747-53A2265, dated February 14, 1986 are met.

H. For the purpose of complying with this AD, the number of landings may be determined to equal the number of pressurization cycles where the cabin pressure was greater than 2.0 PSI.

I. Upon the request of an operator, assigned FAA Principal Maintenance Inspector, subject to prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection time in this AD to permit compliance at an established inspection period of that operator, if the request contains substantiating data to justify the change for that operator.

J. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

K. Aircraft may be ferried unpressurized to a base for maintenance in accordance with Sections 21.197 and 21.199 of the Federal Aviation Regulations.

L. Report a complete description of the findings of each inspection required by paragraph D. and E., above, within 48 hours after that inspection to:

The Boeing Commercial Airplane Company, Attn: Director, 747 Customer Support Engineering, P.O. Box 3707, Seattle, Washington 98124-2207.

This supersedes telegraphic AD T86-02-53, dated January 31, 1986.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Owen Schrader, Airframe Branch, ANM-120S, FAA, Northwest Mountain Region, Seattle Aircraft Certification Office, Seattle, Washington; telephone (206) 431-2925.

SHORT BROS.
Airworthiness Directive
Correction
Volume II

84-24-52 SHORT BROTHERS LTD.: Amendment 39-4992. Applies to all Short Brothers Ltd. SD3-60 airplanes certificated in all categories. To reduce the potential for engine flameouts accomplish the following, unless already accomplished. Before further flight, incorporate the following information into the airplane flight manual:

A. Increase the threshold temperatures from 4 degrees C to 10 degrees C on Page 37, Section 4, Systems Operation, Ice and Rain Protection Systems (as fitted), and provide this information to flight crews.

B. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

NOTE: Compliance with this directive may be effected by including a copy of this AD in the airplane flight manual and operating manual.

This amendment becomes effective February 7, 1985. It was effective earlier to those recipients of telegraphic AD T84-24-52, dated December 7, 1984.

FOR FURTHER INFORMATION CONTACT:

Harold N. Wantiez, Foreign Aircraft Certification Branch, ANM-150S, Seattle Aircraft Certification Office; telephone (206) 431-2977. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

GATES LEARJET
Airworthiness Directive
Correction
Volume II

85-22-04 GATES LEARJET CORPORATION: Amendment 39-5161. Applies to the following Models and serial numbers:

MODEL	SERIAL NUMBER
24D, 24D-A, 24E, 24F, 24F-A	24-218, 24-230 thru 24-357
25, 25B, 25C, 25D, 25F	25-059, 25-061, 25-066 thru 25-373
28	28-001 thru 28-005
29	29-001 thru 29-004
35, 35A	35-001 thru 35-570, 35-589 thru 35-600
36, 36A	36-001 thru 36-053, 36-055

To prevent fire and explosion within the battery case, accomplish the following within the next 25 flight hours after the effective date of this AD, and thereafter at intervals not to exceed 200 flight hours:

A. Inspect the interior of the battery cases for evidence of fuel contamination. Fuel contamination will be evidenced by odor and oily residue. If evidence of contamination is found, before further flight, inspect the jiffy drains forward of the battery compartment to determine the source of contamination, replace any jiffy drain found to be defective, and remove all contamination from battery cases and vent system, in accordance with Gates Learjet Corporation Maintenance Instructions, as applicable.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the inspection requirements of this AD.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region.

All persons affected by this directive who have not already received the applicable service bulletins from the manufacturer, may obtain copies upon request to Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These

documents may be examined at FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, or at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington.

This amendment becomes effective November 12, 1985.

FOR FURTHER INFORMATION CONTACT:

Robert R. Jackson, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Central Region, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

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SHORT BROTHERS
Airworthiness Directive
VOLUME II

86-08-01 SHORT BROTHERS, LTD.: Amendment 39-5286. Applies to Model SD3-30 and SD3-60 series airplanes; serial numbers SH3002 through SH3099, SH3102, and SH3105 (SD3-30 airplanes); SH3601 through SH3661 and SH3663 through SH3665 (SD3-60 airplanes); certificated in any category. Compliance is required as indicated below, unless previously accomplished:

1. Within seven days after the effective date of this AD, inspect the collector tank housing in accordance with Short Brothers Service Bulletin SD330-28-29, dated August 1985 (for SD3-30 series airplanes), and SD360-28-12, Revision 1, dated August 1985 (for SD3-60 series airplanes). If leaks are found, prior to further flight, replace the shrouds and seals in accordance with the applicable service bulletin instructions. If no leaks are found, repeat the inspection at intervals not to exceed 120 hours time in service.

2. Replacement of the existing shrouds and seals in accordance with the applicable service bulletin, referred to in paragraph 1. of this AD, constitutes terminating action for the requirement for the repetitive inspections set forth in paragraph 1., above.

3. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

4. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Short Brothers, 2011 Crystal Drive, Suite 713, Arlington, Virginia 22202. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective April 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-08-02 BOEING: Amendment 39-5288. Applies to all Model 747 series airplanes through line number 625, certificated in any category. To prevent structural failure of the vertical fin in the event of failure of the aft pressure bulkhead, accomplish the following within 6 months after the effective date of this AD, unless already accomplished:

A. Install the vertical fin access cover in accordance with Boeing Service Bulletin 747-53A2264, dated November 25, 1985, or later FAA-approved revisions.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the modifications required by this AD.

All persons affected by this proposal who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O.. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-08-03 BOEING: Amendment 39-5289. Applies to Model 747 series airplanes equipped with General Electric CF6-50 and Pratt and Whitney JT9D-70A engines, listed in Boeing Service Bulletin 747-54A2117, Revision 1, dated November 8, 1985, certificated in any category. To prevent failure of the outboard engine strut aft diagonal brace, accomplish the following, unless already accomplished:

A. Within the next 200 landings after the effective date of this AD, perform a close visual (detailed) inspection for cracking in the brace, and install sealant backup plates and heat resistant sealant over the firewall openings in the strut lower aft bulkhead, in accordance with Boeing Service Bulletin 747-54A2117, Revision 1, or later FAA-approved revisions. Repeat the close visual (detailed) inspection at intervals not to exceed 200 landings until the inspection required by paragraph B., below, is accomplished.

NOTE: Definition of close visual (detailed) inspection method: Close intensive visual inspections of highly defined structural details or locations searching for evidence of structural irregularity. Using adequate lighting and, where necessary, inspection aids such as mirrors, etc., surface cleaning and access procedures may be required to gain proximity.

B. Within the next 400 landings after the effective date of this AD, perform an eddy current conductivity test of the strut diagonal brace to determine its heat treat temper condition in accordance with Boeing Service Bulletin 747-54A2117, Revision 1, or later FAA-approved revisions. Repeat the close visual (detailed) inspection of the strut diagonal brace for cracking specified in paragraph A., above.

C. If the strut diagonal brace conductivity readings indicate an acceptable brace, as defined by Boeing Service Bulletin 747-54A2117, Revision 1, or later FAA-approved revisions, and no cracks are found, no further action is required relative to the diagonal brace.

D. If the strut diagonal brace conductivity readings indicate a possible unacceptable brace, and no cracks are found, visually reinspect the brace lugs for cracks at intervals not to exceed 200 landings until the actions required by paragraph E. of this AD are accomplished.

E. If the strut diagonal brace conductivity readings indicate a possible unacceptable brace, and no cracks are found, accomplish the strut diagonal brace strength verification (Rockwell Hardness Testing) and any necessary corrective action, in accordance with Boeing Service Bulletin

747-54A2117, Revision 1, or later FAA-approved revisions, as follows:

1. within 2,000 landings for airplanes that have accumulated less than 3,000 landings;

2. within 1,500 landings for airplanes that have accumulated 3,000 to 6,000 landings; and

3. within 1,000 landings for airplanes that have accumulated over 6,000 landings.

F. Cracked parts must be replaced prior to further flight.

G. Upon request of an operator, an FAA Principal Maintenance Inspector, subject to prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection times specified in this AD to permit compliance at an established inspection period of that operator, if the request contains substantiating data to justify the change for that operator.

H. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

I. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this proposal who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 27, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-08-04 PRATT & WHITNEY: Amendment 39-5287. Applies to Pratt & Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR turbofan engines.

Compliance is required as indicated unless already accomplished.

To prevent crack propagation and subsequent high pressure compressor (HPC) removable sleeve spacer rupture, perform a one time, eddy current inspection of HPC removable sleeve spacers stages 7-8 and 9-10 for cracks, and replace all stages of HPC removable sleeve spacers with the respective HPC integral sleeve spacers, in accordance with the procedures of PW Alert Service Bulletin (ASB) 5649, dated January 15, 1986, or FAA approved equivalent, per the following schedule:

(a) For HPC removable sleeve spacers stages 7-8 and 9-10:

(1) Inspect spacers within the next 1,000 cycles in service from the effective date of this AD, or prior to reaching 1,700 cycles since the last in-shop fluorescent penetrant or ultrasonic inspection, whichever occurs later.

(2) Remove cracked spacers from service prior to further flight.

(3) Report the following information in writing for each inspection within 30 days of the inspection to the Manager, Engine Certification Office, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, (telex No. 949301 FAANE BURL) (reporting approved by the Office of Management and Budget (OMB) under OMB Number 2120-1156).

(i) Engine serial number
(ii) Inspection date
(iii) Spacer part number and serial number
(iv) Spacer total time and cycles
(v) Spacer time and cycles since last inspection
(vi) Spacer disposition (crack indication, no crack indication)
(vii) If a crack indication is present, report confirmation of location and crack size within 30 days after engine disassembly.

(b) Replace HPC removable sleeve spacers stages 7-8 and 9-10 with the integral sleeve spacers at the next HPC rotor disassembly, but not to exceed 2 calendar years or 4,000 cycles in service, whichever occurs later from the effective date of this AD.

(c) Replace HPC removable sleeve spacers stages 8-9, 10-11, 11-12, and 12-13 with the integral sleeve spacers at the next HPC rotor disassembly.

NOTES: (1) For the purposes of this AD, HPC rotor disassembly is defined as removal of any disk, spacer, or hub from the HPC rotor.

(2) For the purposes of this AD, the last in-shop fluorescent penetrant or ultrasonic inspection is that conducted in accordance with the procedures identified and described in the PW JT8D restructured Engine Manual Part Number 481672 or FAA approved equivalent.

Aircraft may be ferried in accordance with the provisions of FAR Parts 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

PW ASB 5649, dated January 15, 1986, identified and described in this directive, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain a copy upon request to Pratt & Whitney, Publication Department, P.O. Box 611, Middletown, Connecticut 06457. This document also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-46, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

This amendment becomes effective on May 27, 1986.

FOR FURTHER INFORMATION CONTACT:

Jim Jones, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7121.

CFM INTERNATIONAL
Airworthiness Directive
VOLUME II

86-08-05 CFM INTERNATIONAL: Amendment 39-5281. Applies to CFM International CFM56-3/-3B series turbofan engines.

Compliance is required within the next 50 hours time in service (TIS) after the effective date of this AD for engines installed in the Number 2 position and within 150 hours TIS after the effective date of this AD for engines installed in the Number 1 position of B737-300 aircraft unless already accomplished.

To prevent engine shutdown from radial drive shaft disengagement, accomplish the following:

Inspect oil distributor Part Number (P/N) 335-305-800-0 and spirolock P/N 649-363-137-0 in accordance with CFMI CFM56-3/-3B Service Bulletin (SB) 72-205 Revision 2, dated March 19, 1986, or FAA approved equivalent.

(a) If the oil distributor is loose and spirolock is serviceable, either re-inspect the spirolock for serviceability in intervals not to exceed 125 hours TIS since last inspection or replace the oil distributor in accordance with SB 72-205, Revision 2.

(b) If the oil distributor is loose and spirolock is not serviceable, replace the spirolock prior to further flight and either reinspect the spirolock for serviceability within 250 hours TIS or replace the oil distributor.

(c) If the oil distributor is tight no further inspections are required.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, Burlington, Massachusetts, may adjust the compliance time specified in this AD.

CFMI SB Number CFM56-3/-3B 72-205, Revision 2, dated March 19, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request, to CFM International, 1 Neumann Way, Cincinnati, Ohio 45215. This document also may be examined at the Office of the Regional Counsel, New England Region, Federal

Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on April 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Gordon Vertescher, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (617) 273-7087.

86-08-06 GARRETT TURBINE ENGINE COMPANY (GTEC, formerly AiResearch Manufacturing Company of Arizona): Amendment 39-5275. Applies to GTEC Model TPE331-25AA, -25AB, -25DA, -25DB, -25FA, -43A, -43BL, -47A, and -55B turboprop engines with Part Number 865037-10 through -70 second stage turbine stator seal plate assembly installed.

Compliance is required as prescribed in the body of the AD unless already accomplished.

To prevent interference between the second stage rotor and the second stage turbine stator seal plate assembly and possible uncontained failure of the second stage turbine rotor assembly, accomplish the following:

(a) Radiographically inspect the second stage turbine rotor and seal plate assemblies within the next 200 engine operating hours time in service after the effective date of this AD, or prior to the next 500 engine operating hours time in service after the last engine overhaul, whichever comes later, and at intervals not to exceed 300 engine operating hours thereafter. Inspect in accordance with procedures provided in Paragraph 2.A in Garrett Service Bulletin No. TPE331-72-0522 dated February 5, 1986.

(b) Remove from service prior to further flight warped second stage turbine stator seal plate assemblies which fail to meet the radiographic inspection standards. Replace with an assembly in serviceable condition.

NOTE: Garrett has also provided instructions for accomplishing an interim rotational check of the engine in Paragraph 2.A in Service Bulletin No. TPE331-72-0522. The FAA has approved and encourages operators to perform this inspection at 25 hour intervals until the radiographic inspection is accomplished; however, the rotational check is not mandatory.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Western Aircraft Certification Office, P.O. Box 92007, Los Angeles, California 90007-2007 may adjust the compliance times specified in this AD.

Garrett Service Bulletin No. TPE331-72-0522 dated February 5, 1986, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Garrett General Aviation Services Company, Department H65-1, Building 601AD, P.O. Box 29003, Phoenix, Arizona 85038. These documents also may be examined at the Office of the Regional Counsel, 86-ANE-10, Federal Aviation Administration, New England Region, Room 311, 12 New England Executive Park, Burlington, Massachusetts 01803.

This amendment becomes effective on April 18, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Propulsion Section, ANM-174W, FAA, Northwest Mountain Region, Western Aircraft Certification Office, P.C. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1380.

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The 1986 edition of the Summary of Airworthiness Directives is now being published. Renewal Notices have been mailed. Distribution of the Summary and back issues of the biweeklies should begin about mid-June 1986. Continuing coverage of biweekly editions is assured until the new subscriptions are delivered.

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PRATT & WHITNEY
Airworthiness Directive
VOLUME II

86-09-01 PRATT & WHITNEY: Amendment 39-5268. Applies to Pratt & Whitney (PW) JT9D-3A, -7, -7H, -7A, -7AH, -7F, -7J, -20, -59A, -70A, -7Q, and -7Q3 series turbofan engines.

Compliance is required at the next removal of the LPT rotor from the LPT case and vane assembly but not later than December 31, 1989, unless already accomplished.

To prevent low pressure turbine (LPT) case penetration as a result of antirotation pin failures, accomplish the following:

(a) Replace all stainless steel (AMS 5735) LPT antirotation pins with nickel alloy (AMS 5660/5661) LPT antirotation pins on PW JT9D-3A, -7, -7H, -7A, -7AH, -7F, -7J, and -20 series turbofan engines in accordance with the Accomplishment Instructions contained in PW service bulletin (SB) 5292, Revision 3, dated June 24, 1985, or FAA approved equivalent.

(b) Incorporate additional LPT antirotation pins in the 4th, 5th, and 6th stage stator locations on PW JT9D-59A, -70A, -7Q, and -7Q3 series turbofan engines in accordance with the Accomplishment Instructions contained in the PW SB 5507, Revision 3, dated December 5, 1984, or FAA approved equivalent.

Upon request, an equivalent means of compliance may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Aircraft may be ferried in accordance with the provisions of FAR Parts 21.197 and 21.199 to a base where the AD can be accomplished.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

PW SB 5292, Revision 3, dated June 24, 1985, and SB 5507, Revision 3, dated December 5, 1984, are incorporated herein and made part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Pratt & Whitney, Publication Department, P.O. Box 611, Middletown, Connecticut 06457.

These documents also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-21, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

This amendment becomes effective on May 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

86-09-02 PRATT AND WHITNEY: Amendment 39-5277. Applies to Pratt and Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR turbofan engines.

Compliance is required as indicated unless already accomplished.

To prevent outer combustion case rupture due to cracking and distress of combustion chambers and subsequent impingement of combustion gases on the case inner wall, inspect for circumferential cracking and misalignment, and remove and repair as necessary, any part number (P/N) combustion chambers, except P/N's 5001958-02 and 5001959-02, in accordance with the procedures defined in PW SB 5639, Revision 1, dated March 21, 1986, or FAA approved equivalent, per the following:

All combustion chambers, regardless of their category, must be inspected initially within the next 1,000 hours or 1,000 cycles time in service (TIS), whichever occurs first from the effective date of this AD; or in accordance with their respective threshold requirements of paragraph (a) or (b) below, whichever occurs later. Repetitive inspection is required thereafter at intervals not to exceed those specified in paragraph (c) below.

(a) On engines being operated under an engine condition monitoring (ECM) program, inspect the combustion chambers in accordance with the following intervals:

(1) Category 1A chambers on or before 11,000 hours or 9,000 cycles, whichever occurs first, time since new (TSN) or time since 2 through 6 liner replacement (TSLR).

(2) Category 1B chambers on or before 9,000 hours or 7,500 cycles, whichever occurs first, TSN or TSLR.

(3) Category 2A chambers on or before 8,500 hours or 6,000 cycles time since repair (TSR), whichever occurs first.

(4) Category 2B chambers on or before 7,000 hours or 5,000 cycles TSR, whichever occurs first.

(5) Category 3 chambers on or before 4,500 hours or 3,000 cycles TSR, whichever occurs first.

(6) Remove from service prior to further flight, chambers with cumulative circumferential cracking greater than 8 inches in any 1 liner, or axial misalignment of adjacent cross-over tubes greater than 0.250 inch.

(7) Thereafter, chambers must be reinspected at intervals as specified in paragraph (c) below.

(b) On engines not being operated under an ECM program, inspect the combustion chambers in accordance with the following intervals:

(1) Category 1A chambers on or before 9,000 hours or 6,500 cycles, whichever occurs first, TSN or TSLR.

(2) Category 1B chambers on or before 7,000 hours or 5,000 cycles, whichever occurs first, TSN or TSLR.

(3) Category 2A chambers on or before 6,500 hours or 5,000 cycles TSR, whichever occurs first.

(4) Category 2B chambers on or before 5,000 hours or 4,000 cycles TSR, whichever occurs first.

(5) Category 3 chambers on or before 3,500 hours or 2,000 cycles TSR, whichever occurs first.

(6) Remove from service prior to further flight, chambers with cumulative circumferential cracking greater than 8 inches in any one liner, or axial misalignment of adjacent cross-over tubes greater than 0.250 inch.

(7) Thereafter, chambers must be reinspected at intervals as specified in (c) below.

(c) Reinspect combustion chambers previously inspected per paragraph (a) or (b) above, or the repetitive inspection requirements of this paragraph, in accordance with the following intervals:

(1) If the combustion chamber was inspected by borescope or by removing the outer combustion case and visually inspecting, reinspect as follows:

(i) Any category chamber except category 3, with 3 inches or less cumulative circumferential cracking in any one liner, reinspect within the next 3,000 hours or 2,000 cycles TIS since last inspection, whichever occurs first.

(ii) Category 3 chambers with 3 inches or less cumulative circumferential cracking in any one liner, reinspect within the next 2,000 hours or 1,500 cycles TIS since last inspection, whichever occurs first.

(iii) Any category chamber with greater than 3 inches but less than or equal to 6 inches cumulative circumferential cracking in any one liner, reinspect within the next 1,500 hours or 1,000 cycles TIS since last inspection, whichever occurs first.

(iv) Any category chamber with greater than 6 inches but less than or equal to 8 inches cumulative circumferential cracking in any one liner, reinspect within the next 250 hours or 200 cycles TIS since last inspection, whichever occurs first.

(v) Any category chamber with greater than 8 inches cumulative circumferential cracking in any one liner, remove from service prior to further flight..

(vi) Any category chamber with axial misalignment of adjacent cross-over tubes from 0.150 inch to 0.250 inch, reinspect within the next 50 hours or 50 cycles TIS since last inspection, whichever occurs first.

(vii) Any category chamber with axial misalignment of adjacent cross-over tubes greater than 0.250 inch, remove from service prior to further flight.

(2) If the combustion chamber was inspected using the radioisotope procedure, reinspect as follows:

(i) Any category chamber with indicated 3 inches or less cumulative circumferential cracking in any 1 liner, reinspect within the next 2,000 hours or 1,500 cycles TIS since last inspection, whichever occurs first.

(ii) Any category chamber with indicated greater than 3 inches but less than or equal to 6 inches cumulative circumferential cracking in any one liner, reinspect within the next 1,500 hours or 1,000 cycles TIS since last inspection, whichever occurs first.

(iii) Any category chamber with indicated greater than 6 inches but less than or equal to 8 inches cumulative circumferential cracking in any one liner, reinspect within the next 250 hours or 200 cycles TIS since last inspection, whichever occurs first.

(iv) Any category chamber with indicated greater than 8 inches cumulative circumferential cracking in any one liner, remove from service prior to further flight.

(v) Any category chamber with axial misalignment of adjacent cross-over tubes from 0.150 inch to 0.250 inch, reinspect within the next 50 hours or 50 cycles TIS since last inspection, whichever occurs first.

(vi) Any category chamber with axial misalignment of adjacent cross-over tubes greater than 0.250 inch, remove from service prior to further flight.

(d) Combustion chambers removed from service may not have liners weld repaired if any of the following crack indications are present in that liner:

(1) Individual circumferential cracks greater than 3 inches.

(2) Cumulative circumferential cracks greater than 4 inches.

(3) Cumulative circumferential cracks greater than 3 inches but less than or equal to 4 inches and with less than 3 inches circumferential separation between individual cracks.

(4) Liners with circumferential cracks in excess of paragraphs (1) through (3) above must be replaced with new liners.

(5) Previously weld repaired individual circumferential cracks in excess of 3 inches, or previously weld repaired cracks of 3 inches or less in length, which have operated less than 1,000 cycles, or previously weld repaired cracks of which any portion has recracked, must be included in the crack length indications for determining repairability.

(6) Previously weld repaired individual circumferential cracks of 3 inches or less which have operated at least 1,000 cycles without any portion of the repair recracking, do not have to be included in the crack length indications for determining repairability.

NOTES (1) Classification of the categories of cumbustion chambers must be supported by repair documentation. Previously weld repaired circumferential cracks are to be considered as cracks for determining combustion chamber category. For the purposes of this AD, notwithstanding the definitions in PW SB 5639, Revision 1, dated March 21, 1986, the combustion chamber categories are defined as follows:

Category 1A - First run chambers or non first run chambers which have had at least the Numbers 2 through 6 liners replaced as described in PW SB 5639 with new materials and do not have any weld repairs on those liner segments. The remaining liners, if repaired, must be repaired in accordance with the requirements of Category 2A and 2B. Category 1A chambers have at least the Numbers 2 through 5 liners coated internally with magnesium zirconate heat resistant coating.

Category 1B - Same as Category 1A except without the magnesium zirconate heat resistant coating.

Category 2A - Non first run chambers incorporating either SB 5192, or SB 5199, or an existing 2 to 3 liner seam with a fusion weld overlay, or a new 2 to 3 liner seam weld without a fusion weld overlay; and with either a patch repair, or repair by liner replacement less than that of Category 1A and 1B, or individual circumferential weld repaired cracks of 3 inches or less or cumulative circumferential weld repaired cracks totaling 4 inches or less in any one liner that are separated by at lest 3 inches of uncracked material. Category 2A chambers have at least the Numbers 2 through 5 liners coated internally with magnesium zirconate heat resistant coating.

Category 2B - Same as Category 2A except without the magnesium zirconate heat resistant coating.

Category 3 - All chambers with liner repairs that are not documented as Categories 1A, 1B, 2A, or 2B and chambers specifically including individual circumferential weld repaired cracks greater than 3 inches or cumulative circumferential weld repaired cracks totaling more than 4 inches in any one liner.

(2) For the purpose of this AD, an ECM program is defined as PW ECM-I or ECM-II, as described in Appendix A of SB 5639, Revision 1, dated March 21, 1986, or FAA approved equivalent. Should stable cruise data be unavailable for a period exceeding 48 hours (2 calendar days), 12 flight cycles, or 14 flight hours, whichever occurs later; and should the combustion chambers be beyond the non-ECM inspection category hour or cycles limit, the chambers must be inspected within the next 10 cycles in service. In the event that stable cruise data again become available prior to the expiration of the above 10 cycle limit, return to the ECM inspection category is permitted if the following conditions are met:

(i) The period during which stable cruise data is unavailable does not include any one period of data loss that exceeds 72 hours (3 calendar days), and;

(ii) One stable cruise point is recorded for each day that stable cruise data were unavailable, and that the rate of data acquisition not exceed one data point per cycle, and;

(iii) No maintenance was accomplished on the fuel flow, exhaust gas temperature (EGT), or N1/N2 rotor speed engine instrumentation, and;

(iv) The stable cruise data recorded per paragraph (ii) above be processed by the ECM program and evaluated by a qualified analyst to confirm that no significant parameter shifts have occurred.

(3) The radiographic inspection technique referenced in telegraphic airworthiness directive (TAD) T85-17-51 R1 as an

approved alternate means of compliance, is not considered an equivalent means of compliance with this AD.

(4) Combustion chambers which are removed from service prematurely, inspected in accordance with this AD, and that do not require repair, may be returned to service to continue their run to the appropriate initial inspection threshold or the applicable repetitive inspection interval, whichever is greater.

(5) Magnesium zirconate heat resistant coating is to be applied in accordance with the JT8D Restructured Engine Manual P/N 481762, Chapter 72-41-14, Repair Number 28, or FAA approved equivalent. To meet the requirement for magnesium zirconate in a given combustion chamber category, the coating must have been completely renewed on at least the 2 through 5 liners at that repair rather than locally patched.

(6) PW All Operators Wire Number JT8D/72-41/PSE: JKS: 5-8-23-1, dated August 23, 1985, and Flight Operations Engineering Report Number RFT5-8-30-1, dated August 30, 1985, contain further information relevant to combustion chamber distress and the symptoms which manifest themselves as a result of excessive combustion chamber cracking and misalignment.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

PW SB 5639, Revision 1, dated March 21, 1986, identified and described in this directive, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Pratt & Whitney, Publication Department, P.O. Box 611, Middletown, Connecticut 06457. This document also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-34, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

This amendment supersedes telegraphic AD T85-17-51 R1, issued September 25, 1985.

This amendment becomes effective on May 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Jim Jones, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7121.

BRITISH AEROSPACE
Airworthiness Directive
VOLUME II

86-09-04 BRITISH AEROSPACE AIRCRAFT GROUP: Amendment 39-5290. Applies to Model HS 748, constructor numbers 1793, 1794, and 1795 (Mod 402); and 1796 (Mod 400); and to any other airplanes which incorporate Modification 6953, certificated in any category. Compliance is required within 60 days after the effective date of this AD. To prevent the accidental disarming of the emergency lighting system, accomplish the following, unless previously accomplished:

1. Modify the emergency lighting system in accordance with BAe HS 748 Service Bulletin 33/29, dated April 2, 1984.

2. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 26, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING
Airworthiness Directive
VOLUME II

86-09-06 BOEING: Amendment 39-5307. Applies to all Model 737 series airplanes listed in Boeing Service Bulletin 737-53-1051, Revision 3, dated July 12, 1985, certificated in any category. To prevent rapid loss of cabin pressure resulting from undetected frame cracking, accomplish the following upon the accumulation of 6,000 landings or within 90 days after the effective date of this AD, whichever occurs later, unless previously accomplished:

A. Visually inspect the forward and aft body frames adjacent to the forward lower cargo door for cracks, in accordance with the Flight Safety Inspection Program in Boeing Service Bulletin 737-53-1051, Revision 3, or later FAA-approved revisions. Repeat the inspection at intervals not to exceed 4,000 landings.

B. If cracks are found, prior to further flight, repair in accordance with Part III. A. or Part III. B., as applicable, of Boeing Service Bulletin 737-53-1051, Revision 3, or later FAA-approved revisions.

C. For airplanes that have had cracks repaired in accordance with Part III. A. of Boeing Service Bulletin 737-53-1051, initial release, or later FAA-approved revisions, visually inspect the frames for cracks in the area of the repair upon the accumulation of 25,000 landings after the repair, and repeat at intervals not to exceed 17,000 landings thereafter. Parts found cracked must be repaired prior to further flight in accordance with an FAA-approved repair method.

D. For airplanes that have had cracks repaired in accordance with the Boeing Model 737 Structural Repair Manual, Section 51-40-3, or with Part III. B. of Boeing Service Bulletin 737-53-1051, Revision 3, or later FAA-approved revisions, visually inspect the frames for cracks in the area of the repair upon the accumulation of 6,000 landings after the repair and repeat at intervals not to exceed 4,000 landings thereafter. Parts found cracked must be repaired prior to further flight in accordance with an FAA-approved repair method.

E. Modification of uncracked frames in accordance with the Preventative Modification of Boeing Service Bulletin 737-53-1051, Revision 3, or later FAA-approved revisions, constitutes terminating action for the requirements of this AD.

F. Airplanes with cracked frames may be flown in accordance with FAR 21.197 and 21.199 to a maintenance base for repairs or replacement required by this AD.

G. An alternate method of compliance or adjustment of the compliance time which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective June 16, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Carlton Holmes, Airframe Branch, ANM-120S; telephone (206) 431-2926. Mailing address: Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-09-07 BOEING: Amendment 39-5306. Applies to Model 747 series airplanes listed in Boeing Alert Service Bulletin 747-53A2267, dated March 28, 1986, certificated in any category.

To prevent a condition that could lead to depressurization of the airplane accomplish the following, unless already accomplished:

A. Perform an external visual inspection of lower longitudinal lap joint areas for corrosion in accordance with Boeing Alert Service Bulletin 747-53A2267, dated March 28, 1986, or later FAA-approved revision.

1. Inspections are to commence in accordance with the following schedule after the effective date of this AD:

a. For airplanes with 12,000 flight hours or more, within the next 100 landings after the effective date of this AD, or within 4,000 flight hours or 15 months from the last inspection of each lap joint area, provided no corrosion was found at that inspection, whichever is later.

b. For airplanes with less than 12,000 flight hours, within the next 1,000 flight hours after the effective date of this AD, or prior to the accumulation of 12,000 flight hours, whichever is later.

2. If corrosion is found and is associated with cracks, skin penetration, or missing fasteners; or if it exceeds a total length of 20 inches along any 40-inch distance; repair before further flight in accordance with paragraph C., below. Reinspect airplanes with less severe corrosion at intervals not to exceed 1,000 flight hours or 6 months, whichever is sooner.

3. If no corrosion is found, reinspect at intervals not to exceed 4,000 flight hours or 15 months, whichever is sooner.

B. If corrosion is found in the longitudinal lap joint area, perform an internal inspection of the body frames for cracking in the vicinity of each corroded lap joint area before further flight in accordance with Boeing Alert Service Bulletin 747-53A2267, dated March 28, 1986, or later FAA-approved revision, unless already accomplished within the last 1,000 landings. Repeat the frame inspections thereafter at intervals not to exceed 1,000 landings until terminating action is performed on the lap joints in accordance with paragraph C., below. Repair cracks before further flight in accordance with an FAA-approved method.

C. Terminating action for the repetitive inspections of paragraphs A. and B., above, is repair of the lap joints in

accordance with Boeing Service Bulletin 747-53A2267, dated March 28, 1986, or later FAA-approved revision.

D. Apply organic corrosion inhibiting compound to each lap joint after each inspection.

E. For the purposes of complying with this AD, the number of landings may be determined to equal the number of pressurization cycles where the cabin pressure differential was greater than 2.0 psi.

F. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

G. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes unpressurized to a base for the accomplishment of inspections and/or modifications required by this AD.

H. For Boeing Model 747SR airplanes only, based on continued mixed operation of cabin pressure differentials, the reinspection intervals specified in paragraph B. of this AD may be multiplied by a 1.2 adjustment factor.

All persons affected by this proposal who have not already received the appropriate service information from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This supersedes AD 76-05-05, Amendment 39-2538, as amended by Amendments 39-2698, 39-2961, and 39-3430.

This amendment becomes effective May 27, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING
Airworthiness Directive
VOLUME II

86-09-09 BOEING: Amendment 39-5304. Applies to Boeing Model 757-200 airplanes, listed in Boeing Service Bulletin 757-25A0058, dated April 18, 1986, certificated in any category. Compliance required within 45 days after the effective date of this amendment, unless already accomplished.

To ensure proper door opening and escape slide deployment accomplish the following:

A. Modify slide pack release cable assemblies on Doors No. 1 and No. 2, left and right, in accordance with Boeing Service Bulletin 757-25A0058, dated April 18, 1986, or later FAA-approved revisions.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this AD who have not already received copies of the service bulletin cited herein may obtain copies upon request from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective May 30, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Jeff Gardlin, Airframe Branch, ANM-120S; telephone (206) 431-2932. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-09-10 McDONNELL DOUGLAS: Amendment 39-5305. Applies to McDonnell Douglas Model DC-10 and KC-10A (Military) series airplanes, certificated in any category. To preclude a potential unsafe condition resulting from loss of fuel shutoff and fire extinguishing capabilities, accomplish the following within the next 300 flight hours after the effective date of this AD, unless already accomplished:

A. Modify engine No. 2 aft fuselage mounted fuel fire shutoff valve, ITT Part Number AV16A1323B or Whittaker Part Number 233865, in accordance with the accomplishment instructions of McDonnell Douglas DC-10/KC10A Alert Service Bulletin A28-168, dated March 14, 1986, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region. Repeat this modification at intervals not to exceed six (6) months. Modification of the aft fuselage mounted fuel fire shutoff valves in accordance with McDonnell Douglas Service Bulletin 28-168, dated April 16, 1986, by machining an elongated drain hole in the valve body constitutes terminating action for this item.

B. Modify engine No. 1 and engine No. 2 wing spar mounted fuel fire shutoff valves, ITT Part Number AV16A1323B, in accordance with the accomplishment instructions of McDonnell Douglas DC-10 Alert Service Bulletin A28-55, dated April 4, 1986, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region. Repeat this modification at intervals not to exceed six (6) months. Rotation of engine No. 1 and No. 2 wing spar mounted fuel fire shutoff valves in accordance with the Accomplishment Instructions of McDonnell Douglas Service Bulletin 28-55, dated April 23, 1976, or later revisions, constitutes terminating action for this item.

C. An alternate means of compliance with this AD which provides an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplane to a base for accomplishment of the requirements of this AD.

All persons affected by this directive who have not already received the appropriate documents from the manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-L65 (54-60). These documents may be examined at the FAA, Northwest

Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective May 27, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Romy L. Santiago, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6327.

BEECH
Airworthiness Directive
Final Copy of Letter
VOLUME II

85-21-07 BEECH: Amendment 39-5295. Applies to Models 1900 and 1900C (all serial numbers) airplanes certificated in any category.

Compliance: Required within 10 hours time-in-service after receipt of this AD, unless already accomplished.

To ensure that required performance can be achieved for each approved combination of takeoff configuration, weight, altitude, and temperature, accomplish the following:

(a) Revise Beech Model 1900/1900C Pilot's Operating Handbook and FAA Approved Airplane Flight Manual (POH/AFM), P/N 114-590021-3, in accordance with Model 1900 and 1900C interim Addendum to POH/AFM, P/N 114-590021-3, dated October 21, 1985.

NOTE: The above cited interim Addendum was transmitted to Model 1900/1900C operators of record by Beech letter 52-85-1948, dated October 21, 1985.

(b) Conduct further operations in accordance with the POH/AFM so revised.

(c) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Wichita, Kansas 67209; telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Mr. Lou Gollin, Beech Aircraft Service Engineering, Department 52, Post Office Box 85, Wichita, Kansas 67201, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective May 6, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter from the FAA, dated October 22, 1985, and is identified as AD 85-21-07.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles J. Maple, Wichita Aircraft Certification Office, ACE-160W, Federal Aviation Administration, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4433.

BOEING
Airworthiness Directive
Final Copy of Letter
VOLUME II

86-03-51 BOEING: Amendment 39-5297. Applies to Model 747 series airplanes, certificated in any category. To detect body structure cracking in the nose section that could lead to decompression, accomplish the following, unless already accomplished:

A. For airplanes that have accumulated 14,000 landings or more, within 25 landings after receipt of this AD perform an external close visual inspection of the fuselage skin lap splice at stringer 23 and the fuselage skin along stringer 24A between body stations 240 and 400 on both the left and right side of the fuselage. Repeat the inspections thereafter at intervals not to exceed 60 landings until inspected in accordance with paragraph D. or E., below.

NOTE: Per MSG-3, definition of close visual (detailed) inspection method: Close intensive visual inspections of highly defined structural details or locations searching for evidence of structural irregularity. Adequate lighting and, where necessary, inspection aids such as mirrors, etc., surface cleaning and access procedures may be required to gain proximity.

B. For airplanes that have accumulated 10,000 landings but less than 14,000 landings, within 50 landings after the receipt of this AD, perform an external close visual inspection of the fuselage skin lap splice at stringer 23 and the fuselage skin along stringer 24A between body station 240 and 400 on both the left and right side of the fuselage. Repeat the inspections thereafter at intervals not to exceed 120 landings until inspected in accordance with paragraph D. or E., below.

C. If, as a result of the inspections required in paragraphs A. and B., above, the fuselage skin is found cracked, a visual inspection for cracks of the frames from stringer 20 to stringer 28 from fuselage station 240 and 440 on both sides of the airplane must be made before further flight.

D. For airplanes, line numbers 88 through 603, perform a visual or X-ray inspection for cracking of the body structure and skins in the following areas: on the main deck between body stations 240 and 400 from the window belt to the floor, both left and right; between body stations 200 and 240 from stringer 13A to 14E; and at the body station 360 frame web at stringer 3L; in accordance with Boeing Service Bulletin 747-53A2265, dated February 14, 1986, or later FAA-approved revisions, in accordance with the following schedule:

1. On airplanes that have accumulated more than 14,000 landings as of the receipt of this AD, inspect within 100 landings after the receipt of this AD.

2. On airplanes that have accumulated 12,000 to 14,000 landings as of the receipt of this AD, inspect within 200 landings after the receipt of this AD.

3. On airplanes that have accumulated fewer than 12,000 landings as of the receipt of this AD, inspect within 400 landings after the receipt of this AD, or prior to the accumulation of 10,000 landings, whichever occurs later.

E. For airplanes, line numbers 1 through 87, perform a visual or X-ray inspection for cracking of the body structure and skins from body station 360 through 380 from stringer 23 to the main deck floor, in accordance with Boeing Service Bulletin 747-53A2265, dated February 14, 1986, or later FAA-approved revisions, in accordance with the schedule described in paragraph D., above.

F. Repeat the inspections required by paragraphs D. and E., above, at the following intervals:

1. If the immediately prior inspection was accomplished using visual methods, perform the next inspection within the next 3,000 landings.

2. If the immediately prior inspection was accomplished using X-ray methods, perform the next inspection within the next 1,500 landings.

G. If any cracking is found, repair prior to further flight in accordance with FAA-approved procedures, unless the provisions of Section III, Paragraph G., of Boeing Service Bulletin 747-53A2265, dated February 14, 1986, are met.

H. For the purpose of complying with this AD, the number of landings may be determined to equal the number of pressurization cycles where the cabin pressure was greater than 2.0 PSI.

I. Upon the request of an operator, an assigned FAA Principal Maintenance Inspector, subject to prior approval of the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection time in this AD to permit compliance at an established inspection period of that operator, if the request contains substantiating data to justify the change for that operator.

J. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

K. Aircraft may be ferried unpressurized to a base for maintenance in accordance with Sections 21.197 and 21.199 of the Federal Aviation Regulations.

L. Report a complete description of the findings of each inspection required by paragraphs D. and E., above, within 48 hours after that inspection to: The Boeing Commercial Airplane Company, Attention: Director, 747 Customer Support Engineering, P.O. Box 3707, Seattle, Washington 98124-2207.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This document may also be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or

the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This supersedes telegraphic AD T86-02-53, dated January 31, 1986.

This Amendment 39-5297 becomes effective May 19, 1986, as to all persons, except those persons to whom it was made immediately effective by telegraphic AD T86-03-51, dated February 16, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-07-09 R1 BOEING: Amendment 39-5280 as amended by Amendment 39-5309. Applies to all Boeing Model 757 and 767 airplanes, certificated in any category. To ensure the integrity of the cargo compartment smoke detection system, accomplish the following within 30 days after the effective date of this AD, unless already accomplished:

A. Replace the lamps in the four Autronics Corporation Model 2156-204 cargo compartment smoke detectors and install placards in accordance with Autronics Service Bulletin 2156204-26-01, dated April 14, 1986, or later FAA-approved revision.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this AD who have not already received the above specified service bulletin from the manufacturer may obtain copies upon request from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. The service bulletin may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-5280 became effective April 22, 1986.

This Amendment 39-5309 becomes effective May 20, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert McCracken, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, Seattle Aircraft Certification Office; telephone (206) 431-2947. Mailing address: FAA, Seattle Aircraft Certification Office, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

85-22-08 R2 GATES LEARJET CORPORATION: Amendment 39-5166 as amended by Amendment 39-5223 is further amended by Amendment 39-5296. Applies to Model 55 airplanes, serial numbers 55-003 through 55-086, except those incorporating Service Bulletin 55-27-7A, Airplane Modification Kit 55-84-7B, or Airplane Accessory Kit 55-83-4.

Compliance required as indicated after the effective date of this AD, unless already accomplished.

To prevent use of incorrect landing distances, accomplish the following:

A. Within the next 10 hours time-in-service after the effective date of this AD, insert the following information in the "FAA Approved Airplane Flight Manual for Gates Learjet 55," dated 3/17/81 (on 10/4/85, changes through Change 20, dated 5/10/84, were current):

1. Replace the paragraph "SPOILERS/AUTOSPOILERS/SPOILERONS" (pages 1-14) with:

"SPOILERS/SPOILERONS

(a) Spoilers.

(1) During landings, a time delay in the spoiler circuit will cause increased spoiler extension times. For a normal landing (spoilerons operative with flaps below 25 degrees), full spoiler extension will require approximately 5 seconds. If the spoilerons are inoperative (AUG AIL light illuminated) or the SPOILERON circuit breaker (co-pilot's AC bus) is pulled, spoiler extension will require approximately 11 seconds. To account for the increase spoiler deployment times, the following corrections must be applied to the Actual Landing Distance obtained from the ACTUAL LANDING DISTANCE chart in Section V:

Normal Landing: Multiply distance by 1.04.

Spoilerons Inoperative: Multiply distance by 1.15.

(2) If the spoilers are inoperative during flight, the maximum operating altitude is limited to 41,000 feet.

(3) Do not extend spoilers with flaps extended while airborne.

(4) Do not extend spoilers, or operate with spoilers deployed, at speeds above VMO/MMO.

(b) Spoilerons

(1) Spoilerons may be inoperative. If spoileron preflight check fails, the SPOILERON circuit breaker (co-pilot's AC bus) must be pulled. When the SPOILERON circuit breaker is pulled, the spoilers and spoilerons will be inoperative in flight and landing spoiler deploy times will increase. With spoilerons inoperative, the maximum operating

altitude will be limited to 41,000 feet, and the Actual Landing Distance obtained from Section V must be increased by 15 percent (multiply by 1.15)."

2. Replace the first NOTE under the BEFORE TAXI Spoileron System Check (page 2-20) with the following:

"In the event the spoilerons fail the following check, SPOILERON circuit breaker (co-pilot's AC bus) - Pull. AUG AIL will illuminate. The spoilers and spoilerons will be inoperative in flight. The spoiler deploy time will be increased for landing. In this event, the maximum operating altitude is limited to 41,000 feet and the Actual Landing Distance obtained from Section V must be increased 15 percent (multiply by 1.15)."

3. The following factors must be applied to the Actual Landing Distance obtained from figure 5-57 (page 5-74):

"Normal Landing: Multiply distance by 1.04
Spoilers Inoperative: Multiply distance by 1.15."

B. In order to comply with the requirements of paragraph A., above, a copy of this AD may be used as a temporary amendment to the Airplane Flight Manual (AFM) and carried in the airplane as part of the AFM until replaced by Gates Learjet-published Temporary Flight Manual (TFM) Changes TFM 85-17, TFM 85-18, and TFM 85-19.

C. Temporary Flight Manual (TFM) Changes TFM 85-17, TFM 85-18, and TFM 85-19 may be removed from the AFM upon incorporation of either Gates Learjet Service Bulletin (SB) 55-27-7A (dated December 12, 1985), Airplane Modification Kit (AMK) 55-84-7B (dated December 12, 1985), or Airplane Accessory Kit (AAK) 55-83-4.

D. For airplanes equipped with thrust reversers modified in accordance with Gates Learjet SB 55-27-7 or AMK 55-84-7A, that modification (SB 55-27-7 or AMK 55-84-7A) must be removed within the next 30 days after the effective date of this AD.

E. For airplanes not equipped with thrust reversers, modification in accordance with Gates Learjet SB 55-27-7 or AMK 55-84-7A constitutes terminating action for the requirements of this AD.

F. Alternate means of compliance with provide an acceptable level of safety may be used when approved by the Manager, Wichita Aircraft Certification Office, FAA, Central Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Gates Learjet Corporation, P.O. Box 7707, Wichita, Kansas 67277. These documents also may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, Central Region, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas.

Amendment 39-5166 became effective November 22, 1985
Amendment 39-5223 became effective February 6, 1986.

3 85-22-08 R2

This Amendment 39-5296 becomes effective May 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Bennett L. Sorensen, Aerospace Engineer, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4433.

altitude will be limited to 41,000 feet, and the Actual Landing Distance obtained from Section V must be increased by 15 percent (multiply by 1.15).

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86-11-01 BOEING: Amendment 39-5322. Applies to all Model 747 airplanes, certificated in any category. To prevent wheel or tire failure as a result of failure of the wheel bearing, accomplish the following, unless already accomplished:

A. Within 100 flight cycles after the effective date of this AD, remove and inspect both the inner and outer wheel bearings, Timken P/N's LM229146 and LM229139, in accordance with the applicable portions of Sections 32-45-01 through 32-45-03 of the Boeing Model 747 maintenance manual. Any wheel bearing found damaged must be replaced with a new or serviceable bearing prior to further flight.

NOTE: Serviceable bearings are those Timken bearings, P/N's LM229146 and LM229139, which have been inspected with a close visual inspection and found to have no visible damage (i.e., galling, gouging, spauling, overheat, etc.).

B. After accomplishment of the inspection required by paragraph A., above, reinspect both the inner and outer wheel bearings in accordance with the schedule below. Any wheel bearing found damaged as a result of the required inspections must be replaced with a new or serviceable bearing before further flight.

1. Bearings P/N LM229146 and LM229139, date stamped LS and subsequent, except those identified in subparagraph B.2., below, must be reinspected at intervals not to exceed 100 flight cycles.

2. Bearings date stamped LS and subsequent, which are installed on Boeing Model 747SR airplanes which have not incorporated Boeing Service Bulletin 747-32-2272 (which relates to gross weight increase), must be reinspected at intervals not to exceed 200 flight cycles.

3. Bearings date stamped prior to LS must be reinspected at intervals not to exceed 250 flight cycles.

C. Installation of inner and outer Timken wheel bearings, P/N's LM229147C and LM229140C, constitutes terminating action for the repetitive inspections required by paragraph B., above.

D. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate an airplane to a base for the accomplishment of inspections and/or modifications required by this AD.

The service information specified in this AD may be obtained upon request to the Boeing Commercial Airplane

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Company, P.O. Box 3707, Seattle, Washington 98124. It may also be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective June 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Gary D. Lium, Systems and Equipment Branch, ANM-130S; telephone (206) 431-2946. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-11-02 BRITISH AEROSPACE: Amendment 39-5323. Applies to Model BAC 1-11 200 and 400 series airplanes, certificated in any category. To detect overspeeding of the cold air unit, accomplish the following within the next 120 days after the effective date of the AD, or prior to reaching the threshold indicated in each paragraph below, whichever is the later, unless already accomplished:

A. Prior to the accumulation of 10,000 flight hours or 8 years in service, whichever is the earlier, and thereafter at intervals not to exceed 3,000 flight hours or 14 months, whichever occurs first, perform a functional test of the cold air unit overheat protection circuits in accordance with paragraph 2.1 of the accomplishment instructions of British Aerospace BAC 1-11 Alert Service Bulletin 21-A-PM5863, Revision 2, dated June 12, 1984. If found faulty, the overheat protection circuits must be repaired before further flight.

B. For aircraft not incorporating Graviner 156D overheat detectors, prior to 300 flight hours after the effective date of this AD, perform a workshop calibration and functional test of the overheat detectors; thereafter, repeat this test at intervals not to exceed 3,000 flight hours or 14 months, whichever occurs first.

C. For aircraft incorporating Graviner 156D overheat detectors which have accumulated 7,000 flight hours or 4 years since new or from last calibration, perform a workshop calibration and functional test of the overheat detectors within the next 3,000 flight hours or fourteen (14) months, whichever is the earlier; thereafter, repeat this test at intervals not to exceed 10,000 flight hours or 6 years, whichever occurs first.

D. Overheat detectors that do not pass the tests of paragraphs B. or C., above, must be replaced before further flight.

E. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to British Aerospace, Inc., Box 17414, Dulles International Airport, Washington, D.C. 20041.

These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective July 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

ROLLS-ROYCE LIMITED
Airworthiness Directive
VOLUME II

86-11-03 ROLLS-ROYCE LIMITED: Amendment 39-5301. Applies to Rolls-Royce Spey 555-15, -15H, -15N, and -15P turbofan engines.

Compliance is required as indicated unless already accomplished.

To prevent possible failure of the stage 12 high pressure compressor (HPC) disk, stage 12 HPC rotor seal, and low pressure compressor (LPC) drive shaft (Pre-Mod. 4927), accomplish the following in accordance with Rolls-Royce Service Bulletin (SB) Sp 72-969, dated May 1984, or FAA approved equivalent:

Remove stage 12 HPC disks and rotor seals, and LPC drive shafts (Pre-Mod. 4927) from service on or before accumulating the cyclic lives (flights) specified below. Parts which have accumulated more cycles in service than those specified below on the effective date of this AD, must be removed prior to further flight.

CYCLIC LIVES

PART DESCRIPTION	MODIFICATION	A* NUMBER OF FLIGHTS	B* NUMBER OF FLIGHTS	C* NUMBER OF FLIGHTS	D* NUMBER OF FLIGHTS	E* NUMBER OF FLIGHTS	F* NUMBER OF FLIGHTS
High Pressure Compressor Stage 12 Rotor Disks and Seals		13,800	15,600	17,600	19,700	22,100	17,300
Low Pressure Compressor Rotor Drive Shaft	Pre-Mod 4927	10,800	10,800	11,500	12,600	14,400	11,200

*NOTE: Cyclic lives for each component are for flight profiles as denoted by A through F and defined below:

For engines with no N2 monitoring:

A. Spey 555-15 and 555-15N full throttle
Spey 555-15H and 555-15P rated takeoff

For engines with N2 monitoring:

B. Where 85 percent of takeoffs do not exceed 100 percent N2

C. Where 85 percent of takeoffs do not exceed 99 percent N2

D. Where 85 percent of takeoffs do not exceed 98 percent N2

E. Where 85 percent of takeoffs do not exceed 97 percent N2

F. Datum profile, average 99.5 percent N2

Aircraft may be ferried in accordance with the provisions of FAR Sections 21.197 and 21.199 to a base where the AD can be accomplished.

Rolls-Royce SB Sp 72-969, dated May 1984, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to the Service Manager, Spey Engine, Rolls-Royce Limited, East Kilbride, Glasgow G74-4PY, Scotland. This document also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

This amendment becomes effective on June 20, 1986.

FOR FURTHER INFORMATION CONTACT:

Chung C. Hsieh, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7091.

86-11-04 PRATT & WHITNEY: Amendment 39-5300. Applies to Pratt & Whitney (PW) JT9D-3A, -7, -7H, -7A, -7AH, -7F, -7J, and -20 series turbofan engines.

Compliance is required as indicated, unless already accomplished.

To prevent diffuser case rupture resulting from diffuser case rear rail cracking, accomplish the requirements of the PW Service Bulletin (SB) 5591, Revision 4, dated March 6, 1986, or FAA approved equivalent, for the JT9D-3A, -7, -7H, -7A, -7AH, -7F, and -7J turbofan engines, and the requirements of PW SB 5670, dated March 6, 1986, or FAA approved equivalent, for the JT9D-20 turbofan engines as follows:

(a) Eddy current inspect the diffuser case rear rail for cracks within the next 500 cycles in service after the effective date of this AD.

(b) Reinspect the diffuser case rear rail for cracks, at the established reinspection intervals, as stated in the respective SB's.

(c) Remove from service, prior to further flight, diffuser cases cracked beyond the established acceptable limits as stated in the respective SB's.

(d) Eddy current inspect the diffuser case rear rail for cracks on engines separated at "M" flange, and repair cracked cases, prior to return to service.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Aircraft may be ferried in accordance with the provisions of FAR Sections 21.197 and 21.199 to a base where the AD can be accomplished.

Upon submission of substantiating data by an owner or operator, through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance schedule specified in this AD.

PW SB Number 5591, Revision 4, dated March 6, 1986, and PW SB 5670, dated March 6, 1986, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Pratt & Whitney Group, Commercial Products Division, 400 Main Street, East Hartford, Connecticut 06108. These documents also may be examined at the Office of Regional Counsel, New England Region,

FAA, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

This amendment becomes effective on June 16, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

BOEING
Airworthiness Directive
Final Copy of Telegram
VOLUME II

85-25-55 BOEING: Amendment 39-5326. Applies to all Model 747 series airplanes, line number 1 through 607, powered by General Electric CF6 or Pratt & Whitney Aircraft JT9D-70A turbofan engines, certificated in any category.

To prevent failure of the Engine Number 1 control cable which may cause loss of control of the engine, accomplish the following, unless previously accomplished:

1. Within 48 hours following receipt of this AD, and thereafter at intervals not to exceed 600 flight hours, perform inspections and repair, if necessary, in accordance with Boeing Alert Service Bulletin 747-76A-2063, Revision 1, dated December 18, 1985, or later FAA-approved revisions.

2. Alternate means of compliance which provides an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and modifications required by this AD.

4. Modification of the Engine Number 1 engine control cable in accordance with Boeing Service Bulletin 747-76-2063, dated July 12, 1985, constitutes terminating action for the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may also be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This AD was effective earlier to all recipients of telegraphic AD T85-25-55 issued December 20, 1985.

This amendment becomes effective June 23, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Arthur D. Scholes, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office; telephone (206) 431-2972. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING

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86-11-05 GARRETT TURBINE ENGINE COMPANY (formerly the AiResearch Manufacturing Company of Arizona): Amendment 39-5325. Applies to all Model TFE731-2, -3, and -3R turbofan engines installed in aircraft certified in all categories equipped with fan rotor discs, part number 3073436-1, -2, -3, and -4 and 3072162-1, -2, -3, and -4.

Compliance is required as indicated unless already accomplished.

To prevent failure of the fan rotor disc due to fatigue cracking, accomplish the following:

(a) For fan rotor discs with 4000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service before reaching 4100 total operating cycles.

(b) For fan rotor discs with more than 4000 but with 6000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service within the next 100 operating cycles or prior to reaching 6005 total operating cycles whichever occurs first.

(c) For fan rotor discs with more than 6000 but with 8000 or less operating cycles on the effective date of this AD, remove fan rotor disc from service within the next 5 operating cycles or prior to reaching 8001 total operating cycles whichever occurs first.

(d) For fan rotor discs with more than 8000 operating cycles on the effective date of this AD, remove fan rotor disc from service prior to further flight.

NOTES: (1) An operating cycle is considered as any engine operating sequence involving an engine start, at least one acceleration to 80 percent or more low pressure rotor speed, and an engine shutdown. An alternate method of determining cycles is to consider each airplane landing as one cycle. Fan rotor discs which have had their cyclic lives calculated by any other method are to have their cyclic lives recalculated using one of the two methods specified above.

(2) It has come to the attention of the FAA that some life limit log cards in the engine log book were incorrectly filled out in that the "dash number" of the disc part numbers (i.e., -1/-2/-3/-4) may have been left off. This should be corrected when the disc is next available to read the entire part number. All fan rotor discs are -1, -2, -3, or -4, and are affected by this AD. Fan rotor discs may be returned to GTEC for evaluation. Shipping information is contained in Garrett Alert Service Bulletin No. TFE731-A72-3328 Revision 2 dated April 4, 1986.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007 may adjust the compliance time specified in this AD.

This amendment supersedes priority letter AD 86-04-02 issued February 14, 1986.

There are two effective dates for this superseding AD.

For those operators who received priority letter AD 86-04-02, the effective date of this AD is the date of the priority letter AD (issued February 14, 1986).

The effective date of this AD is June 16, 1986, for operators with fan rotor disc part number 3073436-4 or 3072162-4 installed and for operators who did not receive the priority letter AD.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Aerospace Engineer, Propulsion Section, ANM-174W, FAA, Northwest Mountain Region, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1382.

BOEING
Airworthiness Directive
VOLUME II

86-11-06 BOEING: Amendment 39-5327. Applies to Model 707 and 720 series airplanes, certificated in any category, with 15,000 or more landings. To ensure continued structural integrity of the wing front spar upper chord, accomplish the following within 100 landings or 60 days after the effective date of this AD, whichever occurs first, unless previously accomplished within the last 900 landings or 305 days:

A. Perform a close visual inspection of the wing front spar upper chord for cracks and corrosion in accordance with Boeing Service Bulletin 3240, Revision 1, dated November 13, 1981, or later FAA-approved revision. Repeat the inspection at intervals not to exceed 1,000 landings or one year, whichever occurs first.

B. If cracks or corrosion areas are found, repair prior to further flight in accordance with Boeing Service Bulletin 3240, Revision 3, dated October 18, 1985, or later FAA-approved revision.

C. Cracks which have been repaired in accordance with the "stop drilling" procedure described in Part III, Figure 2, of Service Bulletin 3240, Revision 1, dated November 13, 1981, or later FAA-approved revision, must be visually inspected at intervals not exceeding 300 landings, until permanently repaired in accordance with Part III, Figure 2, of Service Bulletin 3240, Revision 3, dated October 18, 1985, or later FAA-approved revision. A permanent repair must be completed within 1,000 landings or one year, whichever occurs first after the effective date of this AD.

D. Cracks greater than 2.0 inches in length, which have been previously repaired in accordance with Boeing Service Bulletin 3240, Revision 2, dated May 3, 1985, or earlier, must be repaired in accordance with Revision 3, dated October 18, 1985, or later FAA-approved revision, within 1,000 landings or one year, whichever occurs first after the effective date of this AD.

E. After each of the above inspections and repairs have been performed, apply BMS-3-23 corrosion inhibitor, or equivalent, to the affected areas.

F. Alternate means of compliance or adjustment of the compliance time, which provide an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

G. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the inspections and/or modifications required by this AD.

All persons affected by this proposal who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This AD supersedes AD 85-08-07, Amendment 39-5044.

This amendment becomes effective July 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Carlton Holmes, Airframe Branch, ANM-120S; telephone (206) 431-2926. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-12-02 GARRETT TURBINE ENGINE COMPANY: Letter issued June 6, 1986. Applies to Garrett Turbine Engine Company Models TPE331-25AA, -25AB, -25DA, -25DB, -25FA, -43A, -43BL, -47A, -55B, -1, -2, -2UA, -3U, -3UW, -5, -6, -6A, -8, -10, -10G, -10R, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, -11U, -11UA, -12, and TSE331-3U turboprop and turboshaft engines.

Compliance required as indicated unless already accomplished.

To prevent the failure of the beryllium-copper nut on the turbine end of the tiebolt shouldered shaft and resultant major damage to the engine, accomplish the following:

(a) Engines with less than 100 engine operating hours since new or since installation of a turbine oil scavenge pump assembly for any reason are to have an initial oil sample taken and processed in accordance with the instructions provided in paragraph 2 of Garrett Service Bulletin No. TPE331-72-0530, dated May 9, 1986, (SB 0530) or FAA approved equivalent. This is to be accomplished at not less than 20 hours or more than 25 hours since new or after the installation of that pump assembly, or within 5 engine operating hours after receipt of this priority letter AD, whichever occurs later unless paragraph (e) below has been accomplished. Additional oil samples are to be taken and processed at not more than 25 operating hour intervals thereafter until a total of 100 operating hours has been accumulated since new or since installation of that pump assembly or until paragraph (e) below has been accomplished.

(b) Engines with 100 or more, but less than 500 engine operating hours since new or since installation of a turbine oil scavenge pump assembly for any reason on the date of receipt of this priority letter AD, are to have an oil sample taken and processed in accordance with the instructions provided in paragraph 2 of SB 0530 within the next 50 engine operating hours after receipt of this priority letter AD. This inspection is not required if paragraph (e) below has been accomplished.

NOTE: Garrett recommends that oil samples continue to be taken at regular intervals after accomplishment of this priority letter AD in accordance with the Spectrometric Oil Analysis Program (SOAP) described in Garrett Service Information Letter No. P331-97. While the FAA encourages these programs, they are not mandatory per this priority letter AD.

(c) If oil sample analysis indicates beryllium content of oil is in excess of 0.2 (two-tenths) parts per million, accomplish paragraph (e) before further flight.

(d) If oil sample analysis indicates beryllium content of oil is in excess of 0.1 (one tenth) parts per million, but equal to or less than 0.2 (two-tenths) parts per million, accomplish paragraph (e) within the next five engine operating hours.

(e) Engines which exceed the limits for beryllium content in the engine oil are to have the torsion shaft inspected, the turbine oil scavenge pump reworked or replaced, the beryllium-copper nut replaced, the turbine oil scavenge pump drive spur gear shaft assembly inspected, and the engine oil and filter changed in accordance with paragraph 2 of SB 0530 or FAA approved equivalent approved by the Manager, Western Aircraft Certification Office. The inspection of the torsion shaft does not apply to the following engine models which have "strain-gage" torque sensors:

TPE331-10G	TPE-331-10UG	TPE331-10UGR
TPE331-11U	TPE331-11UA	TPE331-12

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FARs) 21.197 and 21.199 to a base where the AD can be accomplished. Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007. Upon submission of substantiating data by an owner or operator, through an FAA Maintenance Inspector, the Manager, Western Aircraft Certification Office may adjust the compliance time specified in this AD.

This priority letter AD is effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Propulsion Section, Western Aircraft Certification Office, P.O. Box 92007, Los Angeles, California 90009-2007, telephone (213) 297-1382.

86-12-03 GENERAL ELECTRIC COMPANY: Amendment 39-5311. Applies to General Electric (GE) CF6-50 and -45 turbofan engines.

To prevent possible failure of high pressure turbine rotor (HPTR) stage 1 disk, accomplish the following:

(a) Remove from service, in accordance with General Electric (GE) Alert Service Bulletin (SB) A72-859, Revision 1, dated January 1, 1986, those HPTR stage 1 disks identified by specific serial numbers listed in GE Alert SB A72-859, Revision 1, under Paragraph 2., Table 1, for inspection to determine conformance with the FAA approved type design.

(b) Compliance required as follows:

(1) For those disks with less than 5,490 flight cycles since new on the effective date of this AD, comply prior to the accumulation of 5,500 flight cycles.

(2) For those disks with 5,490 or greater flight cycles since new on the effective date of this AD, comply within the next 10 flight cycles.

(c) Those HPTR stage 1 disks which do not conform to the FAA approved type design will be retired from service.

(d) Those HPTR stage 1 disks which conform to the FAA approved type design may be returned to service.

NOTE: For the purpose of this AD, the number of flight cycles equals the number of flights that involve an engine operating sequence consisting of engine starting, takeoff operation, landing and engine shutdown.

Aircraft may be ferried in accordance with the provisions of FAR Sections 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office may adjust the compliance time specified in this AD.

GE Alert SB A72-859, Revision 1, dated January 1, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to General Electric Company, 1 Neumann Way, Cincinnati, Ohio 45215. This document also may be examined at

the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective on June 29, 1986.

FOR FURTHER INFORMATION CONTACT:

Jeff Blazey, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7090.

86-12-04 BOEING: Amendment 39-5320. Applies to Model 737 series airplanes, certificated in any category, as listed in Boeing Service Bulletin 737-55-1034, dated April 12, 1985.

To detect cracking in the horizontal stabilizer center section rear spar upper chord, accomplish the following prior to the accumulation of 50,000 landings; or prior to the accumulation of 50,000 landings after chord replacement; or prior to the accumulation of 35,000 landings after modification in accordance with Boeing Service Bulletin 737-55-1034, Part II, dated April 12, 1985; or within 500 landings after the effective date of this AD; whichever occurs latest, unless accomplished within the last 4,000 landings:

A. Eddy current inspect the horizontal stabilizer center section rear spar upper chord for cracks in the areas of each beam gusset plate in accordance with the Flight Safety Inspection Program in Boeing Service Bulletin 737-55-1034, dated April 12, 1985, or later FAA-approved revisions. Repeat the inspections at intervals not to exceed 4,500 landings.

B. If cracks are found in the horizontal stabilizer center section rear spar upper chord, repair in accordance with Part II, or replace in accordance with Part III, of the Accomplishment Instructions in Boeing Service Bulletin 737-55-1034, dated April 12, 1985, or later FAA-approved revisions. Resume the inspections required by paragraph A., above, no later than 9,000 landings after repair, or 50,000 landings after replacement, as appropriate.

C. For purposes of complying with this AD, subject to acceptance by the assigned FAA Maintenance Inspector, the number of landings may be determined by dividing each airplane's hours time in service by the operator's fleet average time from takeoff to landing for the airplane type.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

E. An alternate means of compliance or adjustment of the compliance time, which provide an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service bulletin from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or

the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective June 30, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Carlton Holmes, Airframe Branch, ANM-120S; telephone (206) 431-2926. Mailing address: Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-12-05 BOEING: Amendment 39-5321. Applies to Model 737 series airplanes listed in Boeing Service Bulletin 737-55-1033, dated April 12, 1985, certificated in any category. To detect cracking in the horizontal stabilizer center section rear spar upper chord attach lugs, accomplish the following prior to the accumulation of 40,000 landings; or prior to the accumulation of 40,000 landings after a chord replacement or modification in accordance with Boeing Service bulletin 737-55-1033, Option I, dated April 12, 1985; or within 200 landings after the effective date of this AD; whichever occurs latest, unless accomplished within the last 5,500 landings.

A. Eddy current inspect the horizontal stabilizer center section rear spar upper chord attach lug for cracks in accordance with the Flight Safety Inspection Program specified in Boeing Service Bulletin 737-55-1033, dated April 12, 1985, or later FAA-approved revisions. Repeat at intervals not to exceed 5,700 landings.

B. If cracks are found, replace the horizontal stabilizer center section rear spar upper chord in accordance with Boeing Service Bulletin 737-55-1033, dated April 12, 1985, or later FAA-approved revisions. Resume the inspections required by paragraph A., above, prior to the accumulation of 40,000 landings after the chord replacement, or modification in accordance with Boeing Service Bulletin 737-55-1033, Option I, dated April 12, 1985.

C. For purposes of complying with this AD, subject to acceptance by the assigned FAA Maintenance Inspector, the number of landings may be determined by dividing each airplane's hours time in service by the operator's fleet average time from takeoff to landing for the airplane type.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

E. An alternate means of compliance or adjustment of the compliance time, which provide an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service bulletin from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or

the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective June 30, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Carlton Holmes, Airframe Branch, ANM-120S; telephone (206) 431-2926. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING
Airworthiness Directive
Revision
VOLUME II

84-19-02 R1 BOEING: Amendment 39-4917 as amended by Amendment 39-5314. Applies to those Boeing Model 747 series airplanes certificated in all categories, listed in Boeing Alert Service Bulletin 747-57A2229 dated August 10, 1984, or later FAA approved revisions, that have the reworked and interim production flap tracks in positions Number 1 through 8. Part numbers are listed in the Service Bulletin for the affected flap tracks.

NOTE: The inspections specified in this airworthiness directive (AD) are in addition to the inspections currently required by AD 83-21-02 (48 FR 48220).

To prevent failure of the trailing edge flap tracks, accomplish the following:

A. Within 100 landings after the effective date of this AD, unless already accomplished within the last 200 landings, and at intervals thereafter not to exceed 300 landings, visually inspect for cracks the flap track lower flanges and vertical webs at the front end, adjacent to bolts number 1 through 3 in accordance with Alert Service Bulletin 747-57A2229, initial release or later FAA approved revisions. Cracked parts must be replaced prior to further flight.

NOTE: These are the bolts that pass through both the flap track and the front end of the fail-safe bar. Inspection of the flap track may be performed by borescope through access holes in the flap track fairing adjacent to the front of the track. The proper location and diameter for the access holes is provided in the Service Bulletin.

B. Initially, as specified in Table I, below, and at intervals thereafter not exceeding 1,000 landings, visually inspect the flap track webs for cracks extending from all fastener holes not previously inspected under paragraph A., above, in accordance with Boeing Service Bulletin 747-57-2146, Revision 3, or later FAA-approved revisions. Cracked parts must be replaced before further flight.

TABLE I

Number of landings since last inspection as of the effective date of this amendment.	Inspect prior to the accumulation of the following number of landings.
0 - 700	1,000 from last inspection
701 - 1,700	300 after effective date of amendment
1,701 - 2,000	2,000 from last inspection

C. For purposes of complying with this AD, subject to acceptance by the assigned FAA Maintenance Inspector, the number of landings may be determined by dividing each airplane's time in service by the operator's fleet average time from takeoff to landing for the airplane type.

D. On request by the operator, an FAA Principal Maintenance Inspector, subject to prior approval by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection times in this AD, if the request contains substantiating data to justify the increase for the operator.

E. Aircraft may be ferried to a maintenance base for repair in accordance with FAR 21.197 and 21.199.

F. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA Northwest Mountain Region.

All persons affected by this proposal who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-4917 superseded Airworthiness Directive (AD) 76-03-06, Amendment 39-2516 (40 FR 57811; December 12, 1975).

Amendment 39-4917 became effective September 27, 1984.

This Amendment 39-5314 becomes effective June 23, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING
Airworthiness Directive
Revision
VOLUME II

86-02-06 R1 BOEING: Amendment 39-5222 as amended by Amendment 39-5331. Applies to all Model 727 series airplanes, certificated in any category.

To detect cracks in the Body Station 1183 pressure bulkhead web and strap, accomplish the following:

A. For airplanes with 40,000 or more flight cycles on the effective date of this AD, within the next 300 flight cycles, unless accomplished within the last 3,200 flight cycles, and thereafter at intervals not to exceed 3,500 flight cycles, inspect and repair, if necessary, in accordance with paragraph D., below.

B. For airplanes with 33,000 or more flight cycles and less than 40,000 flight cycles on the effective date of this AD, within the next 1,500 flight cycles, unless accomplished within the last 2,000 flight cycles, and thereafter at intervals not to exceed 3,500 flight cycles, inspect and repair, if necessary, in accordance with paragraph D., below.

C. For airplanes with fewer than 33,000 flight cycles on the effective date of this AD, prior to the accumulation of 30,000 flight cycles or within the next 3,500 flight cycles after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 3,500 flight cycles, inspect and repair, if necessary, in accordance with paragraph D., below.

D. Accomplish a close visual inspection of the web in accordance with Figure 1 of Boeing Alert Service Bulletin 727-53A0171, Revision 1, dated January 17, 1986, or later FAA-approved revision. If any cracks are detected, repair prior to further flight in accordance with paragraph E. or F. of the Accomplishment instructions of that service bulletin.

E. For airplanes repaired by the installation of the doubler, in accordance with Boeing Service Bulletin 727-53A0171, Original Issue, within the next 15,000 flight cycles after that repair, incorporate the vertical reinforcing strap and spacers described in paragraph F. of the Accomplishment Instructions of Boeing Alert Service Bulletin 727-53A0171, Revision 1, dated January 17, 1986, or later FAA-approved revisions.

F. The following constitutes terminating action for the repetitive inspections required by paragraphs A., B., and C. of this AD:

1. The preventive modification described in paragraph D. of the Accomplishment Instructions in Boeing Alert Service Bulletin 727-53A0171, Revision 1, dated January 17, 1986, or later FAA-approved revision; or

2. The repairs described in paragraphs E. and F. of the Accomplishment Instructions in Boeing Alert Service Bulletin 727-53A0171, Revision 1, dated January 17, 1986, or later FAA-approved revision.

G. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

H. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-5222 became effective February 6, 1986.

This Amendment 39-5331 becomes effective July 21, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Stanton R. Wood, Airframe Branch, ANM-120S; telephone (206) 431-2924. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

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TD 4.10/4:

86-14-07 SIKORSKY AIRCRAFT: Letter issued July 9, 1986. Applies to all Model S-76A helicopters certificated in any category and Model S-76B helicopters serial numbers 760262, 760269, 760299, 760303, and 760310 through 760319, certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent operation with a failed pilot's yaw control push rod assembly, P/N 76400-00034-041, accomplish the following:

(a) Prior to further flight, inspect the push rod assembly in accordance with Section E, paragraph 1, of Sikorsky Alert Service Bulletin (ASB) No. 76-ASB-76-67-22A, dated July 7, 1986, or an FAA-approved equivalent. If no dent, crack, distortion or bowing is detected in the rod, install a placard legible to the pilot and in full view of the pilot stating "single pilot operation prohibited." This placard is to remain until the inspection required by paragraph (b) below is accomplished.

(b) Within the next 25 hours time in service after the effective date of this AD, inspect the push rod assembly for condition of heat treat in accordance with Section E, paragraph 2, of Sikorsky ASB No. 76-ASB-76-67-22A, dated July 7, 1986, or an FAA-approved equivalent.

(c) If as a result of the inspection of paragraph (a) a dent, crack, distortion or bowing is detected or if as a result of the inspection of paragraph (b) above, the heat treat (hardness) is incorrect, replace the rod assembly with a new or serviceable component that complies with this AD prior to further flight.

(d) Aircraft may be ferried in accordance with the provisions of FAR Sections 21.196 and 21.199 to a base where the AD can be accomplished.

(e) Upon request, an alternate method of compliance or adjustment of the compliance time, which provides an equivalent level of safety, may be approved by the Manager, Boston Aircraft Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7118.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Don Thompson, Airframe Branch, ANE-152, Boston Aircraft Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts, telephone (617) 273-7112.

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SIKORSKY
Airworthiness Directive
VOLUME I

AEROSTAR (RAVEN)
Airworthiness Directive
Revision
VOLUME I

86-10-11 R1 AEROSTAR (RAVEN): Amendment 39-5350. Applies to Models S-40A, S-50A, S-55A, S-60A, S-66A, S-77A, RX-6, RX-7 and W100LB (all serial numbers) Hot Air Balloons certificated in any category.

Compliance: Required prior to further flight, unless already accomplished.

To preclude propane fuel leakage which could result in an uncontained fire in the balloon basket, accomplish the following:

(a) Visually inspect all of the fuel supply hose assemblies in the balloon to determine if any are identified by the part number code "FC321-06" followed by the date of manufacture code "3Q84" or "4Q84."

(b) Prior to further use, remove all hose assemblies with markings as specified in paragraph (a) of this AD, or which do contain "FC321-06" part number code but no date of manufacture code and replace with assemblies of the same part number and a date of manufacture code other than "3Q84" or "4Q84." Make the appropriate entry in the aircraft maintenance records before returning the balloon to service.

(c) If the balloon does not contain any hose assemblies meeting the marking criteria specified in paragraph (a) or (b) of this AD, return the balloon to service after the appropriate entry is made in the aircraft maintenance records.

NOTE: For further guidance with regard to the hose check and possible replacement required by this AD, refer to Aerostar Service Bulletin No. 120, undated.

(d) An alternate method of compliance which provides an equivalent level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Aerostar International, Inc., 1812 "E" Avenue, Sioux Falls, South Dakota 57104, or Office of the Regional Counsel, Room 1558, FAA, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on July 10, 1986, to all persons except those to whom it was made immediately effective by priority letter AD issued May 21, 1986, and is identified as AD 86-10-11.

FOR FURTHER INFORMATION CONTACT:

Mr. Ty Krolicki, Chicago Aircraft Certification Office, FAA, ACE-140C, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone (312) 694-7032.

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SPERRY CORPORATION
Airworthiness Directive
VOLUME II

86-14-01 SPERRY CORPORATION, AEROSPACE AND MARINE GROUP: Amendment 39-5340. Applies to Sperry Corporation AHZ-600 Attitude Heading Reference System (AHRS), known to be installed in, but not limited to, DeHavilland Model DHC-8, British Aerospace Model BAe 125-800, Cessna Model 650, and Aerospatiale Model ATR-42 series airplanes, certificated in any category. Compliance is required within 30 days after the effective date of this AD, unless previously accomplished.

To prevent loss of attitude/heading reference information, accomplish the following:

A. Modify the Sperry Corporation AH-600 Strapdown Attitude and Heading Reference Unit (AHRU) by incorporating modifications in accordance with the following Sperry Service Bulletins or later revisions approved by the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region:

21-1985-175, dated April 7, 1986 (Modification T);
21-1985-186, dated April 7, 1986 (Modifications S & V);
21-1985-187, dated April 7, 1986 (Modification U);
21-1986-19, dated April 22, 1986 (Modification Z);
21-1986-20, dated April 22, 1986 (Modification AA); and
21-1986-29, dated April 22, 1986 (Modification AB).

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Western Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Sperry Corporation, Aerospace & Marine Group, P.O. Box 29000, Phoenix, Arizona 85038-9000. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Western Aircraft Certification Office, 15000 Aviation Boulevard, Hawthorne, California.

This amendment becomes effective July 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Elvin Wheeler, Aerospace Engineer, Systems & Equipment Section, ANM-173W, FAA, Northwest Mountain Region, Western Aircraft Certification Office, 15000 Aviation Boulevard, Hawthorne, California 90261; telephone (213) 297-1132.

86-14-02 ISRAEL AIRCRAFT INDUSTRIES (IAI): Amendment 39-5341. Applies to all Models 1121, 1121A, 1121B, 1123, 1124, and 1124A airplanes, certificated in any category. Compliance is required as indicated below. To detect cracks in the hinge lugs of the horizontal stabilizer aft spar splice fitting (hinge assembly), accomplish the following, unless previously accomplished:

A. Within the next 75 flight hours time-in-service, unless previously inspected within the last 525 flight hours time-in-service, inspect the horizontal stablizer aft spar splice fitting (hinge assembly), part number 453005-501, in accordance with the following IAI service bulletins titled, "Horizontal Stabilizer Aft Spar Splice Fitting PN 453005-501 (Hinge Assembly) Inspection."

MODEL	SERVICE BULLETIN
1121, 1121A, 1121B	1121-55-003, dated April 2, 1985
1123	1123-55-006, dated April 2, 1985
1124, 1124A	1124-55-020, dated April 2, 1985

B. If no cracks are found, repeat the inspection required by paragraph A., above, at intervals not to exceed 600 hours time-in-service.

C. If cracks are found, replace the splice fitting prior to further flight, in accordance with the following IAI service bulletins titled, "Horizontal Stabilizer Assembly - Inspection, Repair, and Improvement (AFC 2037)."

MODEL	SERVICE BULLETIN
1121, 1121A, 1121B	1121-55-004, dated August 5, 1985
1123	1123-55-007, dated August 5, 1985
1124, 1124A	1124-55-021, dated August 5, 1985

If the installation improvement modifications described in paragraph D(2) of each service bulletin is performed, repeat the inspection of paragraph A. of this AD at intervals not to exceed 2,400 hours time-in-service for subsequent inspections. If the installation improvement modification is not accomplished, the inspections must be repeated in accordance with paragraph B. of this AD.

D. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety,

may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service bulletins from the manufacturer may obtain copies upon request to Israel Aircraft Industries, Delaware Office, P.O. Box 10086, Wilmington, Delaware 19850. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective August 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-14-03 AVIONS MARCEL DASSAULT-BREGUET AVIATION (AMD): Amendment 39-5342. Applies to all AMD Mystere Falcon 50 airplanes, certificated in any category. Compliance is required as indicated below. To detect and prevent leaks in the refueling system, accomplish the following:

A. Within the next 30 days after the effective date of this AD, unless accomplished within the last 30 days, and thereafter at intervals not to exceed 30 days, perform an inspection of the guide rod in the refueling connector for damage, in accordance with AMD Service Bulletin F50-28-11(137), dated December 30, 1982. Replace any damaged or leaking guide rod with a serviceable unit prior to further flight.

NOTE: After each refueling under pressure, a visual leak check should be performed.

B. Within 6 months after the effective date of this AD, modify the refueling connector by installing a steel guide rod, in accordance with AMD Service Bulletin F50-28-11(137), unless previously accomplished. Accomplishment of this modification provides terminating action for the inspections required by paragraph A., above.

C. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to the AMD-BA Representative, 40 FJC, Teterboro Airport, Teterboro, New Jersey 07608. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective August 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

FOKKER B.V.
Airworthiness Directive
VOLUME II

86-14-04 FOKKER B.V.: Amendment 39-5343. Applies to Model F28 series airplanes as listed in Fokker Service Bulletin F28/27-161, dated May 6, 1985, certificated in any category. Compliance is required within 6 months after the effective date of this AD. To prevent uncontrolled movement of the horizontal stabilizer, accomplish the following, unless previously accomplished:

A. Modify the horizontal stabilizer control unit in accordance with Fokker Service Bulletin F28/27-161, dated May 6, 1985.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to the Manager of Maintenance and Engineering, Fokker B.V., Product Support, P.O. Box 7600, 11172J Schiphol Oost, The Netherlands. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective August 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SHORT BROTHERS LTD.
Airworthiness Directive
VOLUME II

86-14-05 SHORT BROTHERS, LTD.: Amendment 39-5344. Applies to Model SD3-60 airplanes, serial numbers SH3601 through SH3676 inclusive, certificated in any category. Compliance is required within 90 days after the effective date of this AD. To maintain the structural integrity of the horizontal stabilizer, accomplish the following, unless previously accomplished:

1. Modify the horizontal stabilizer lower skin to spar attachment in accordance with Short Brothers, Ltd., Service Bulletin SD36-55-06, Revision 1, dated May 1985.

2. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to Shorts Aircraft, 1725 Jefferson Davis Highway, Suite 510, Arlington, Virginia 22202. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective August 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-14-06 BRITISH AEROSPACE: Amendment 39-5351. Applies to Model BAe 125-800A series airplanes with manufacturer serial numbers listed in British Aerospace 125 Service Bulletin 24-248-(3024), dated March 8, 1985, certificated in any category. To prevent complete loss of power to the Electronic Flight Instrument System (EFIS), accomplish the following within the next 60 days after the effective date of this AD, unless previously accomplished:

A. Perform the following actions as applicable:

1. For airplanes with manufacturer serial numbers 258003 and 258010, and for airplanes which have utilized power supplies HN1/HP1, the existing heat-sink must be replaced with a new sub-assembly, as described in Part A of the accomplishment instructions of British Aerospace Service Bulletin 24-248-(3024), dated March 8, 1985; or

2. If power supplies HN1/HP1 have not been utilized, the existing heat-sink assembly and associated power supply cabling from ground supply contactor "E" on panel GA must be replaced in accordance with Part B of the accomplishment instructions of British Aerospace Service Bulletin 24-248-(3024), dated March 8, 1985.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective August 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BRITISH AEROSPACE
Airworthiness Directive
VOLUME II

86-14-08 BRITISH AEROSPACE: Amendment 39-5347. Applies to Model BAe 125-800A series airplanes listed in BAe 125 Service Bulletin 27-136-(3059A), Revision 1, dated June 26, 1985, certificated in any category. To prevent loss of stall warning, accomplish the following within the next 60 days after the effective date of this AD, unless previously accomplished:

A. Incorporate a new layshaft assembly in the stall identification system in accordance with the accomplishment instructions of British Aerospace 125 Service Bulletin 27-136-(3059A), Revision 1, dated June 24, 1985.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective August 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-14-09 BRITISH AEROSPACE AVIATION GROUP: Amendment 39-5348. Applies to all Model BAe HS 748 airplanes on which Modification 6909 has not been incorporated, certificated in any category. Compliance is required within the next 500 flight hours time-in-service after the effective date of this AD, unless accomplished within the last 500 flight hours time-in-service, and thereafter at intervals not to exceed 1000 flight hours time-in-service. To prevent the loss of autofeather capability, accomplish the following:

A. Inspect the microswitch rocker arm assemblies in accordance with BAe Service Bulletin 76/15, Revision 3, dated November 1983. Replace any cracked rocker arm assemblies prior to further flight.

B. The installation of modified rocker arm assemblies, in accordance with BAe Service Bulletin 76/15, Revision 3, dated November 1983, terminates the requirement for the inspection called for in paragraph A., above.

C. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective August 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BRITISH AEROSPACE
Airworthiness Directive
AMENDMENT 8

86-14-09 BRITISH AEROSPACE AVIATION GROUP: Amendment 39-5848. Applies to all Model BAe 25 748 airplanes on which Modification 6349 has not been incorporated, certificated in any category. Compliance is required within the next 500 flight hours after the effective date of this AD, unless already accomplished. To prevent the loss of autocontrol capability, accomplish the following:

A. Inspect the microswitch rocker arm assemblies in accordance with BAe Service Bulletin 76/15, Revision 3, dated November 1981. Replace any cracked rocker arm assemblies prior to further flight.

B. The installation of modified rocker arm assemblies, in accordance with BAe Service Bulletin 76/15, Revision 3, dated November 1981, terminates the requirement for the inspection called for in paragraph A., above.

C. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to British Aerospace, Inc., Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective August 6, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Jerry Golden, Standardization Branch, ANM-113; telephone (206) 431-1969. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-14-10 FOKKER B.V.: Amendment 39-5349. Applies to all Model F27 airplanes, certificated in any category, equipped with a forward cabin bulkhead and door between the passenger cabin and the cargo compartment. Compliance is required within 120 days after the effective date of this AD, unless already accomplished. To preclude blockage of the evacuation path through the forward cabin bulkhead door, accomplish the following:

A. Inspect the door hinges to determine if the hinge design prevents the door from being lifted off the lower portion of the hinges, with the door opened. If so, no further action is required.

B. If the hinge design permits the opened door to be lifted off the lower portion of the hinges, modify the hinge installation:

1. In accordance with Fokker Service Bulletin F27/25-58, dated December 20, 1985, for airplanes with the serial numbers to which the service bulletin applies, provided other hinge installation modifications made since initial delivery do not preclude that modification; or

2. To another FAA-approved Fokker F27 configuration which would prevent the door, when open, from being lifted off the lower portion of the hinges.

C. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Manager, Maintenance and Engineering, Fokker B.V., Product Support, P.O. Box 7600, 11172J Schiphol Oost, The Netherlands. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective August 7, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

FOKKER B.V.
Airworthiness Directive
VOLUME II

86-08-05 R1 CFM INTERNATIONAL: Amendment 39-5281 as amended by Amendment 39-5339. Applies to CFM International (CFMI) CFM56-3/-3B series turbofan engines.

Compliance is required within the next 80 hours time in service (TIS) after the effective date of this AD , unless already accomplished.

To prevent engine shutdown from radial drive shaft disengagement, accomplish the following:

Inspect oil distributor Part Number (P/N) 335-305-800-0 and spirolock P/N 649-363-137-0 in accordance with CFMI CFM56-3/-3B Service Bulletin (SB) 72-205 Revision 3, dated April 16, 1986, or FAA approved equivalent. However, the SB torque check increases from 50 inch-lbs. to 100 inch-lbs. and a minimum of 2 hours cool down time is required prior to inspection for the purpose of this AD.

(a) If the oil distributor is loose and spirolock is serviceable, either re-inspect the spirolock for serviceability at intervals not to exceed 125 hours TIS since last inspection or replace the oil distributor in accordance with SB 72-205, Revision 3, and reinspect within 375 hours.

(b) If the oil distributor is loose and spirolock is not serviceable, replace the spirolock prior to further flight and either reinspect the spirolock for serviceability within 250 hours TIS or replace the oil distributor and reinspect within 375 hours.

(c) If the oil distributor is tight, reinspect within 375 hours.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

CFMI CFM56-3/-3B SB 72-205, Revision 3, dated April 16, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to CFM International, 1 Neumann Way,

Cincinnati, Ohio 45215. This document also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 86-ANE-13, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment amends Amendment 39-5281 (44 FR 11034), AD 86-08-05, which became effective April 15, 1986.

This Amendment 39-5339 becomes effective on July 7, 1986.

FOR FURTHER INFORMATION CONTACT:

Gordon Verteschcr, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (617) 273-7087.

PARKER HANNIFIN
Airworthiness Directive
Correction
VOLUME II

86-01-06 AIRBORNE DIVISION, PARKER HANNIFIN CORPORATION: Amendment 39-5206. Applies to the following Airborne Dry Air Pumps and Auxiliary Dry Air Pumps installed on piston engine airplanes certificated in any category:

AIRBORNE PART NUMBER	SERIAL NUMBERS
Dry Air Pumps	
241CC-13	10AA30 thru 10AA36 and 10AA38
242CW	10AA281 thru 10AA293
441CC	9AA260 thru 9AA288 9AA291, 9AA294, 9AA295
441CC-7	9AA929 thru 9AA-949 9AA953, 9AA954 9AA956, 9AA957, 9AA959
442CW	9AA850 thru 9AA875 9AA880 thru 9AA886, 9AA888 thru 9AA903, 9AA905 thru 9AA921, 9AA928, 9AA934, 9AA936, 9AA939, 9AA940, 9AA945 thru 9AA952, 9AA955 thru 9AA958, 9AA962 thru 9AA967
442CW-4	10AA173 thru 10AA179 10AA182 thru 10AA199 10AA201, 10AA202
442CW-12	10AA356, 10AA357, 10AA386, 10AA389
Auxiliary Dry Air Pumps	
4A2-1	9AA44 thru 9AA46
4A3-1	9AA56, 9AA59 thru 9AA66, 9AA73, 9AA79 thru 9AA82 10AA83 thru 10AA88, 10AA90 thru 10AA94, 10AA96, 10AA114, 10AA126, 10AA130, 10AA131, 10AA132, 10AA138, 10AA150, 10AA154, 10AA155, 10AA159, 10AA161

NOTE: These pumps were not available for installation before September 1, 1985. Therefore, new Airborne Dry Air Pumps or Auxiliary Dry Air Pumps installed previous to that date are exempt from this AD. Pumps that have been reworked by Airborne will have a white date code stamped on the pump

housing near the discharge port. This will indicate that the pump complies with this AD.

COMPLIANCE: Required as indicated, unless previously accomplished. To prevent premature failure of the Airborne Dry Air and Auxiliary Dry Air Pumps, accomplish the following:

(a) For Dry Air Pumps P/N's 241CC-13, 242CW, 441CC, 441CC-7, 442CW, 442CW-4, and 442CW-12, prior to further flight in IFR conditions, inspect installed dry air pump(s) to determine if one of the subject pumps is installed.

(1) If one of these pumps is installed, and if the airplane is equipped for IFR flight, fabricate using minimum 0.10 inch letters, and install a placard in full view of the pilot which states; "FLIGHT IN IFR CONDITIONS PROHIBITED", and operate in accordance with this limitation.

(2) And within 15 days of the effective date of this AD, replace the subject pump and remove the placard. Return pump to Airborne as described in Airborne Service Letter No. 30, dated November 11, 1985.

(b) For Airborne Auxiliary Dry Air Pump P/N 4A2-1 or 4A3-1, prior to further flight in IFR conditions, inspect the auxiliary dry air pump if installed, to determine if one of the subject pumps is installed.

(1) If one of these pumps is installed, fabricate using a minimum of 0.10 inch letters and install a placard in full view of the pilot which states;

"STANDBY VACUUM SYSTEM MAY BE INOPERATIVE DUE TO VACUUM PUMP MALFUNCTION".

(2) And within 30 days of the effective date of this AD, replace the subject pump and remove the placard. Return pump to Airborne as described in Airborne Service Letter No. 30, dated November 11, 1985.

(c) Aircraft may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(d) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 232, Des Plaines, Illinois 60018, Telephone (312) 694-7357.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Betty Annable, Parker Hannifin Corp., Airborne Division, 711 Taylor Street, Elyria, Ohio 44036 or the FAA, Rules Docket, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles Smalley, Aerospace Engineer, Systems and Equipment Branch, ACE-130C, FAA, Central Region, Chicago Aircraft Certification Office, 2300 East Devon Ave., Des Plaines, Illinois 60018; Telephone (312) 694-7126.

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86-15-07 Cessna
86-15-08 DeHavilland
86-15-09 Grob-Werke
86-15-10 Aerspatiale
Correction Aerostar (Raven) - Corrects AD 86-10-11 R1
Correction Hartzell - Corrects AD 85-14-10 R1
Correction Marvel Schebler - Corrects AD 72-06-05 R1

TD4.10/4:

86-15-03 MITSUBISHI HEAVY INDUSTRIES, LTD.: Amendment 39-5354. Applies to Model MU-2B, MU-2B-10, MU-2B-15, MU-2B-20, MU-2B-25, MU-2B-26 (Serial Numbers (S/N) 008 through 347 except S/Ns 313 and 321); MU-2B-30, MU-2B-35, MU-2B-36 (S/Ns 501 through 696 except S/Ns 652 and 661) airplanes with U.S. Type Certificate No. A2PC, with certain nose landing gear strut assemblies installed, certificated in any category. (This AD does not apply to MU-2B series airplanes having serial numbers with "SA" suffix.)

Compliance: Required as indicated, unless already accomplished.

To preclude failure of the nose landing gear (NLG) strut assembly with part numbers and serial numbers listed in MHI MU-2 Service Bulletin (S/B) 181 Revision B, dated April 8, 1985 (hereafter referred to as S/B 181) installed, accomplish the following:

(a) For those airplanes with NLG strut assemblies having 4000 or more hours time-in-service (TIS) on the effective date of this AD, within the next 200 hours TIS, and thereafter at intervals not to exceed 200 hours TIS from the last inspection, inspect for cracks using magnetic flux inspection method or fluorescent penetrant inspection method in accordance with "INSTRUCTIONS," Part I of S/B No. 181.

(b) For those airplanes with NLG strut assemblies having less than 4,000 hours TIS on the effective date of this AD;

(1) For the outer cylinder assembly, within the next 200 hours TIS and thereafter at intervals not to exceed 200 hours TIS from the last inspection, inspect for cracks using magnetic flux inspection method or fluorescent penetrant inspection method in accordance with "INSTRUCTIONS," Part I, of S/B No. 181.

(2) For the trunnion and the axle assembly, prior to achieving 4,200 hours total TIS and thereafter at intervals not to exceed 200 hours TIS from the last inspection, inspect for cracks using magnetic flux inspection method or fluorescent penetrant inspection method in accordance with "INSTRUCTIONS," Part I of S/B No. 181.

(c) If cracks are found during any inspection required by paragraph (a) or (b) of this AD, prior to further flight, replace the cracked parts with serviceable parts marked "SP" in accordance with "INSTRUCTIONS," Part II of S/B No. 181.

(d) Installation of the outer cylinder assembly, axle assembly or trunnion marked "SP" is terminating action for the repetitive inspection for that particular part. When all affected parts are replaced in accordance with Part II,

permanently identify the NLG strut assembly with "SB 181" in vicinity of the NLG assembly part number.

(e) Special flight permits may be issued in accordance with FAR Section 21.197 to ferry aircraft to a maintenance base in order to accomplish this AD.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Western Aircraft Certification Office, ANM-170W, Northwest Mountain Region, FAA, Post Office Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007.

All persons affected by this AD may obtain copies of the documents referred to herein upon request to Mitsubishi Heavy Industries, Ltd., 10, Oye-Cho, Minato-ku, Nagoya, Japan, or Beech Aircraft Corporation (Licensee for Mitsubishi), 9709 East Central, Post Office Box 85, Wichita, Kansas 67201, or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment supersedes Amendment 39-3892 (45 FR 54729) as amended by Amendment 39-3956 (45 FR 70227), AD 80-18-12 R1.

This amendment becomes effective August 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Jerry Sullivan, Aerospace Engineer, Airframe Section, ANM-172W, Western Aircraft Certification Office, Northwest Mountain Region, FAA, Post Office Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1166.

86-15-07 CESSNA: Amendment 39-5358. Applies to the following Models and Serial Numbers of airplanes certificated in any category which have been modified by the installation of an engine larger in size and/or horsepower than the Continental O-200-A:

MODELS	SERIAL NUMBERS
150	17001 thru 17999
	59001 thru 59018
150A	15059019 thru 15059350
150B	15059351 thru 15059700
150C	15059701 thru 15060087

Compliance: Required as indicated, unless already accomplished.

To assure operation of the airplane within the approved center of gravity (cg) limits, accomplish the following:

(a) Within the next 25 hours time-in-service (TIS) after the effective date of this AD, accomplish the following:

(1) Weigh the airplane to determine the empty weight (W1) and calculate the cg (cg1). The airplane, as weighed, must include full oil and unusable fuel (21 lbs at fuselage station 40.0 for standard fuel tanks).

(2) Add pilot weight (170 lbs at fuselage station 39.0) to the empty weight (W1+170=W2) and calculate the cg (cg2) for this condition. If this cg is forward of fuselage station 32.2, add ballast between fuselage stations 70.69 and 76.44. (This was the location of the battery prior to the engine modification.)

(3) Determine the amount of ballast (B) required from the following equation:

$$B = \frac{(D) \times (W2)}{X}$$; where,

B = weight in pounds of ballast required by this AD.

D = distance in inches the empty A/C (with pilot) cg must be moved aft in order to comply with this AD (D=32.2-cg2). Obtain cg2 from paragraph (2) above.

W2 = empty weight in pounds of the airplane plus pilot determined in paragraph (2) above.

X = distance in inches from the point where the ballast is installed to the required location of the new cg (fuselage station 32.2 in this case). Using the battery box location, X = 41.36.

(4) Fabricate the channel detailed in Figure 1. Mount the channel between fuselage stations 70.69 and 76.44 using the existing 041328-3 brackets. Attach with MS20470-AD4 rivets through the existing holes in brackets. Install the ballast in accordance with Figure 1. If ballast exceeds 60 pounds, contact the Wichita Aircraft Certification Office at the address given in paragraph (d) below for assistance.

(5) If the empty weight, as calculated in (1) above, plus the ballast exceeds 1142 lbs, prior to further flight, fabricate and install on the instrument panel a placard with a minimum letter size of 1/8 inch which states, "WARNING: THIS AIRPLANE LIMITED TO SINGLE OCCUPANT". If the empty weight exceeds 1195 lbs., equipment must be removed in order that this weight is not exceeded. The 1142 lbs and 1195 lbs are weight limitations established by Civil Air Regulations 3.74(b)(1) and 3.74(b)(2), respectively.

(b) Airplanes which were weighed at the time of installation of the larger engine and have an empty weight cg (including pilot, oil and unusable fuel) aft of fuselage station 32.2 are exempt from paragraphs (a)(1), (a)(2), (a)(3) and (a)(4) of this AD.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

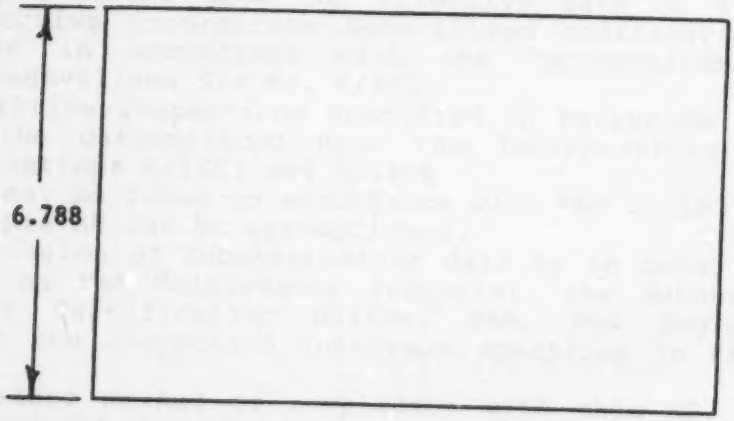
(d) An equivalent method of compliance with this AD may be used if approved by the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4400.

This amendment, 39-5358, becomes effective July 24, 1986.

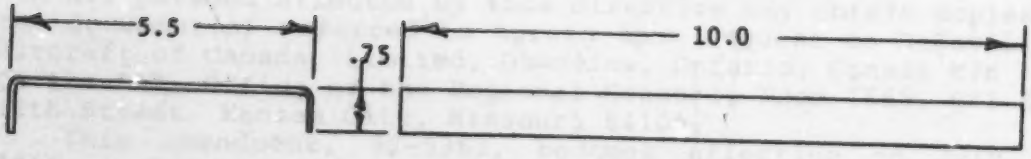
FOR FURTHER INFORMATION CONTACT:

Mr. Douglas W. Haig, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4409.

MATERIAL: 2024-T3
THICKNESS: .040
BEND RADII: .125
SCALE: 1/2
DIMENSIONS: Inches
NOTE: Lead ballast can be stacked sheet stock, ingot, or bar stock. Attach sheet stock with a minimum of 4-AN4 bolts or equivalent. Attach ingots or bar stock with a minimum of 2-AN4 bolts or equivalent per piece of lead, install a large diameter washer, such as an AN 970-4 under both the bolt head and nut. Use either a locknut or a castellated nut with cotter pin.



Flat Plate Layout



CHANNEL

FIGURE 1

DEHAVILLAND
Airworthiness Directive
VOLUME I

86-15-08 DEHAVILLAND: Amendment 39-5362. Applies to Model DHC-6 airplanes, Serial Numbers 3 through 820 inclusive with DeHavilland Modifications 6/1808 and 6/1809.

Compliance: Required as indicated, unless already accomplished.

To detect loose rivets and maintain structural integrity of the horizontal stabilizer, accomplish the following:

(a) Within 50 hours time-in-service (TIS) after the effective date of this AD, and thereafter at intervals not to exceed 150 hours TIS, inspect the four horizontal tail attachment brackets (P/N CTPM1049-27 and C6TPM1050-27) to the stabilizer front and rear spars in accordance with the "ACCOMPLISHMENT INSTRUCTIONS" of DeHavilland Service Bulletin (S/B) No. 6/475, dated July 29, 1985.

(b) If loose rivets are found during the inspection per Paragraph (a) of this AD, within 25 hours TIS thereafter accomplish DeHavilland modifications No. 6/1855 and No. 6/1856 in accordance with the "ACCOMPLISHMENT INSTRUCTIONS" of DeHavilland S/B No. 6/475, dated July 29, 1985.

(c) Within six months from the effective date of this Airworthiness Directive incorporate DeHavilland modifications 6/1855 and 6/1856 in accordance with the "ACCOMPLISHMENT INSTRUCTIONS" of DeHavilland S/B No. 6/475.

(d) The repetitive inspections specified in Paragraph (a) of this AD, may be discontinued upon the incorporation of DeHavilland modifications 6/1855 and 6/1856.

(e) Aircraft may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(f) Upon submission of substantiating data by an owner or operator, through an FAA Maintenance Inspector, the Manager, New York Aircraft Certification Office, FAA, New England Region, may adjust the inspection intervals specified in this AD.

(g) An equivalent method of compliance with this AD, if used, must be approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to DeHavilland Aircraft of Canada, Limited, Downview, Ontario, Canada M3K 1Y5, or the FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment, 39-5362, becomes effective on July 25, 1986.

FOR FURTHER INFORMATION CONTACT:
Mr. Alfred A. Maila, FAA, New York Aircraft Certification Office, ANE-172, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; Telephone (516) 791-6221.

GROB-WERKE
Airworthiness Directive
VOLUME I

86-15-09 GROB-WERKE GMBH: Amendment 39-5356. Applies to Model Grob G 109B motorgliders (serial numbers 6200 through 6430 inclusive) certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent the possibility of encountering aileron flutter which could result in the loss of control of the motorglider, accomplish the following:

(a) Within the next 5 hours time-in-service after the effective date of this AD:

(1) Attach a placard on the instrument panel adjacent to the airspeed indicator with the following wording:

"NEVER EXCEED AIRSPEED (IAS): 190 km/h (100 kts)."

(2) Place a copy of this AD in the limitation section of the flight manual.

(b) Modification of the motorglider, by installing a rudder damper, additional mass-balance to the ailerons, and stiffening the upper and lower rudder hinge attachment points on the vertical tail, in accordance with the "Instructions" section of GROB-Werke GmbH Technical Information No. TM 817-20 dated Jan. 29, 1986, and GROB-WERKE GmbH Repair Instruction No.'s 817-20/1, 817-20/2, 817-20/3, dated Jan. 29, 1986, deletes the requirement for compliance with Paragraph (a).

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, telephone no. 513.38.30 ext. 2710 or the Manager, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone no. 516-791-6680.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Brussels Aircraft Certification Office, or the Manager, New York Aircraft Certification Office, may adjust the compliance time specified in this AD.

Grob-Werke GmbH Technical Information No. 817-20, dated Jan. 29, 1986, and Grob-Werke GmbH Repair Instructions Nos. 817-20/1, 817-20/2, 817-20/3, dated Jan. 29, 1986, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Grob Systems Inc., Aircraft Division, I-75 and Airport

Drive, Bluffton, Ohio 45817. These documents also may be examined at the Office of Regional Counsel, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Room 311, Rules Docket 86-ANE-29, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective on July 31, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, Telephone 513.38.30 ext. 2710, or Vito A. Pulera, ANE-172, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone No. (516) 791-6220.

86-15-10 SOCIETE NATIONALE INDUSTRIELLE AEROSPATIALE (SNIAS): Letter issued July 30, 1986. Applies to Aerospatiale Model AS 350 and AS 355 series helicopters certificated in any category. Compliance is required as indicated, unless already accomplished.

To prevent the failure of main rotor star arms and main gearbox suspension bars, accomplish the following:

(a) Within the next 10 hours' time in service after receipt of this AD:

(1) Inspect the main rotor head star arms for cracks; and

(2) Inspect the main gearbox suspension bars for security of the end fittings and for cracks or deformations in the main tubes. Use a straight edge if necessary to verify a small dent or wrinkle in the tube, taking care not to scratch the tube.

(b) If cracks or deformations are found, replace the damaged parts with serviceable parts.

(c) In the event the helicopter is subjected to a hard landing, a landing producing abnormal dynamic vibrations, or is subjected to high surface winds when parked without blade tiedown straps installed, repeat the inspections of parts (1) and (2) of paragraph (a) before further flight.

(d) Report defects found to the Manager, Aircraft Certification Division, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101 within 10 days after the inspection. (Reporting is approved by the Office of Management and Budget (OMB) under OMB No. 2120-1156.)

(e) An alternate method of compliance with this AD, which provides an equivalent level of safety, may be used when approved by the Manager, Aircraft Certification Division, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, or by the Manager, Aircraft Certification Office, AEU-100, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, Brussels, Belgium.

(f) In accordance with FAR §§ 21.197 and 21.199, flight is permitted to a base where the inspections required by this AD may be accomplished.

NOTE: Aerospatiale Helicopter Corporation Information Telex No. AHC/SE/DB/86T/214 pertains to this subject. Also, maintenance work cards 62.20.00.601 and 63.00.00.606 provide illustrations and additional information concerning inspections of the main rotor head star and main gear box suspension bars. Maintenance work card 62.20.00.772 provides serviceability limits and repair methods for the starflex rotor (star).

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

R. T. Weaver, Regulations Program Management, ASW-111, Rotorcraft Standards Staff, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone (817) 624-5122.

AEROSTAR (RAVEN)
Airworthiness Directive
Correction
VOLUME I

86-10-11 R1 AEROSTAR (RAVEN): Amendment 39-5350. Applies to Models S-40A, S-50A, S-55A, S-60A, S-66A, S-77A, RX-6, RX-7 and W100LB (all serial numbers) Hot Air Balloons certificated in any category.

Compliance: Required prior to further flight, unless already accomplished.

To preclude propane fuel leakage which could result in an uncontained fire in the balloon basket, accomplish the following:

(a) Visually check all of the fuel supply hose assemblies in the balloon to determine if any are identified by the part number code "FC321-06" followed by the date of manufacture code "3Q84" or "4Q84."

(b) Prior to further use, remove all hose assemblies with markings as specified in paragraph (a) of this AD, or which contain "FC321-06" part number code but no date of manufacture code and replace with assemblies of the same part number and a date of manufacture code other than "3Q84" or "4Q84." Make the appropriate entry in the aircraft maintenance records before returning the balloon to service.

(c) If the balloon does not contain any hose assemblies meeting the marking criteria specified in paragraph (a) or (b) of this AD, return the balloon to service after the appropriate entry is made in the aircraft maintenance records.

NOTE: For further guidance with regard to the hose check and possible replacement required by this AD, refer to Aerostar Service Bulletin No. 120, undated.

(d) An alternate method of compliance which provides an equivalent level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Aerostar International, Inc., 1812 "E" Avenue, Sioux Falls, South Dakota 57104, or Office of the Regional Counsel, Room 1558, FAA, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on July 10, 1986, to all persons except those to whom it was made immediately effective by priority letter AD issued May 21, 1986, and is identified as AD 86-10-11.

FOR FURTHER INFORMATION CONTACT:

Mr. Ty Krolicki, Chicago Aircraft Certification Office, FAA, ACE-140C, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone (312) 694-7032.

HARTZELL
Airworthiness Directive
Correction
VOLUME I

85-14-10 R1 HARTZELL PROPELLER PRODUCTS DIVISION: Amendment 39-5098 as amended by Amendment 39-5334. Applies to all Hartzell Model ( )HC- ( )( )(X,V) series propellers with Hartzell Part Number C-3-( ) blade clamp assemblies.

Compliance is required within the next 12 months or by the next overhaul after the effective date of this AD, whichever occurs first, unless already accomplished.

To prevent propeller blade clamp failure, accomplish the following:

(a) Replace all propeller blade clamp assemblies which have serial numbers ranging from 0 through D5293 with airworthy clamp assemblies.

(b) Replace all propeller blade clamp assemblies which have mismatching serial numbers on each clamp half or which have unreadable serial numbers with airworthy clamp assemblies.

(c) Accomplish the following on all blade clamp assemblies which have serial numbers ranging from D5294 through K6336 in accordance with Hartzell Service Instruction No. 159B dated May 23, 1986, or FAA approved equivalent:

(1) Using a 10x power magnifying glass, visually inspect the inner bearing race radius, especially next to the inner clamp bolt hole, for defects in the form of corrosion, tool marks, gouges, scratches, etc.

(2) Remove all evidence of defects in the clamp inner bearing race radius. Replace all reworked clamps that exceed the rework limitations defined in the Service Instruction with airworthy clamp assemblies or return to Hartzell for further evaluation.

(3) Magnetic particle inspect the clamp for evidence of cracks. Replace all cracked clamps with airworthy clamp assemblies.

(4) Replate all reworked clamps.

NOTE: Compliance with Amendment 39-5098 constitutes compliance with this AD.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, Central Region.

Hartzell Service Instruction No. 159B dated May 23, 1986, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain a copy upon request to Hartzell Propeller Products

Division, TRW Aircraft Components Group, 350 Washington Avenue, Piqua, Ohio 45356. This document also may be examined at the Office of Regional Counsel, FAA, Attn: Rules Docket No. 84-ANE-24, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

Amendment 39-5098 (50 FR 30417) became effective on September 27, 1985.

This Amendment 39-5334 becomes effective on June 30, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert Alpiser, Chicago Aircraft Certification Office, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018, telephone (312) 694-7130.

MARVEL SCHEBLER
Airworthiness Directive
Correction
VOLUME I

72-06-05 R2 MARVEL SCHEBLER (Facet Aerospace Products Company): Amendment 39-1411 as amended by Amendment 39-1685 is further amended by Amendment 39-5338. Applies to Models MA-3, MA-3A, MA3-PA, MA-3SPA, MA4-SPA, MA4-5, MA4-5AA, MA-5, MA-5AA, MA-6AA and HA-6 carburetors used on various Franklin (Aircooled), Continental, Lycoming and Ranger engines, having one of the throttle arm and shaft configurations shown in Illustrations A, B, C, or D.

Compliance is required within 30 days after the effective date of the AD, unless already accomplished.

To present looseness or separation of the throttle arm, accomplish the following or any equivalent procedure approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

(1) Inspect the throttle arm to verify that it is bottomed against the shoulder on the throttle stop and positioned so that full throttle travel is obtained, and if not, loosen clamping screw and reposition arm and/or re-rig control system in accordance with airplane manufacturers' maintenance instructions to obtain these conditions.

(2) Inspect the throttle arm on Marvel Schebler MA-3, MA-3A, MA-3PA, MA3-SPA, and MA-4SPA carburetors to determine whether it has a spotfaced or milled flat for the head of the clamping screw. Replace any arm having a milled flat with one having a spotfaced flat. If not already installed, install a Marvel Schebler P/N A15-493 clamping screw (No. 10-24 x 5/8 slotted drilled fillister head) in the throttle arm. Torque the clamping screw to 20-28 in.-lb. and inspect the slot in the end of the arm for clearance. If the slot has closed so that no clearance remains, replace the arm and retorque to the above specifications. After the specified torque is established safety wire the throttle arm and clamping screw to the throttle stop as shown in Illustration A.

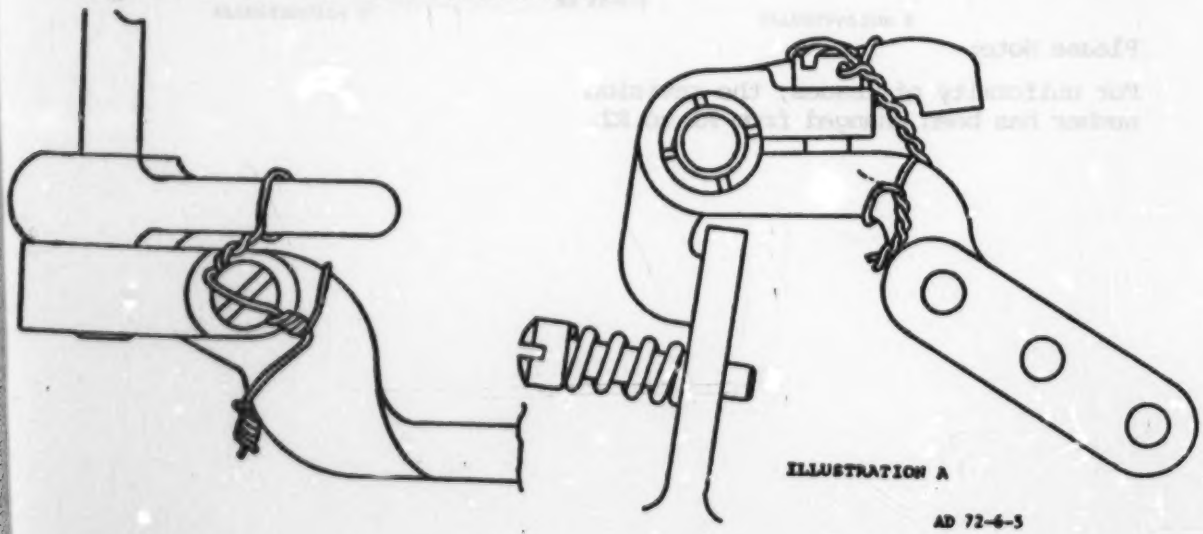


ILLUSTRATION A

AD 72-6-5

(3) On Marvel Schebler MA-4-5, MA4-5AA, MA-5, MA-5AA, MA-6AA, and HA-6 series carburetors with throttle arms having a 10-32 bolt and nut clamping the arm on the throttle stop, torque the nut to 35 to 40 in. lbs. and safety wire the throttle arm to the throttle stop as shown in Illustration B. On these series carburetors having a throttle arm threaded for a 10-24 screw, if not already installed, install a Marvel Schebler P/N A15-493 clamping screw (No. 10-24 x 5/8 slotted drilled fillister head) in the throttle arm and torque the screw to 20 to 28 in. lbs. Safety wire the throttle arm to the throttle stop as shown in Illustration C or D.

NOTE: The procedures specified in American Aviation Corporation Service Letter No. 69-4, dated October 3, 1969, Cessna Service Letter SE71-17 revised February 25, 1972, and Lycoming Service Bulletin No. 330A, dated October 30, 1970, are approved as equivalent procedures to those prescribed in this AD for the applicable carburetors.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, New York Aircraft Certification Office, Aircraft Certification Division, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

Amendment 39-1411 (AD 72-6-5) became effective March 24, 1972.

Amendment 39-1685 became effective July 9, 1973.

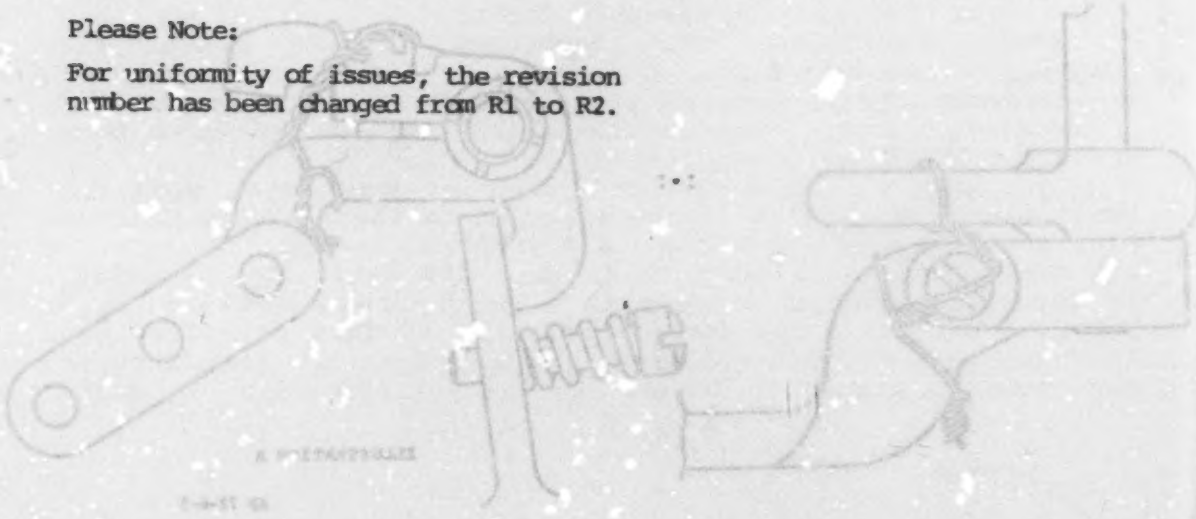
This Amendment 39-5338 becomes effective July 3, 1986.

FOR FURTHER INFORMATION CONTACT:

Roy Hettenbach, ANE-174, New York Aircraft Certification Office, Aircraft Certification Division, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone (516) 791-7421.

Please Note:

For uniformity of issues, the revision number has been changed from R1 to R2.



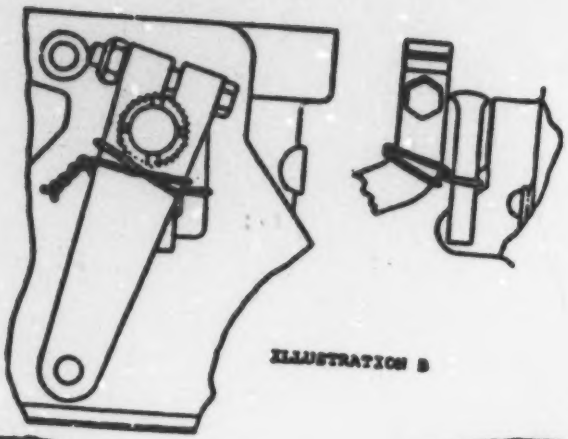


ILLUSTRATION B

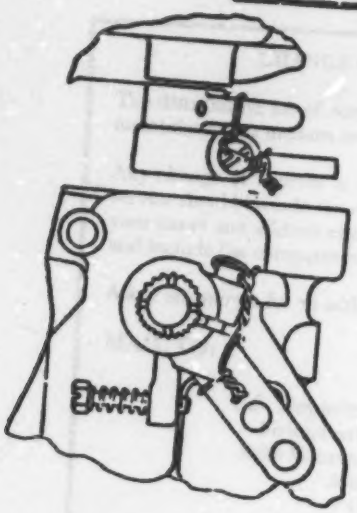


ILLUSTRATION C

AD 72-6-5

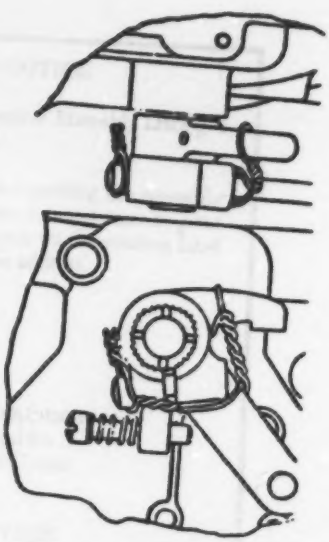
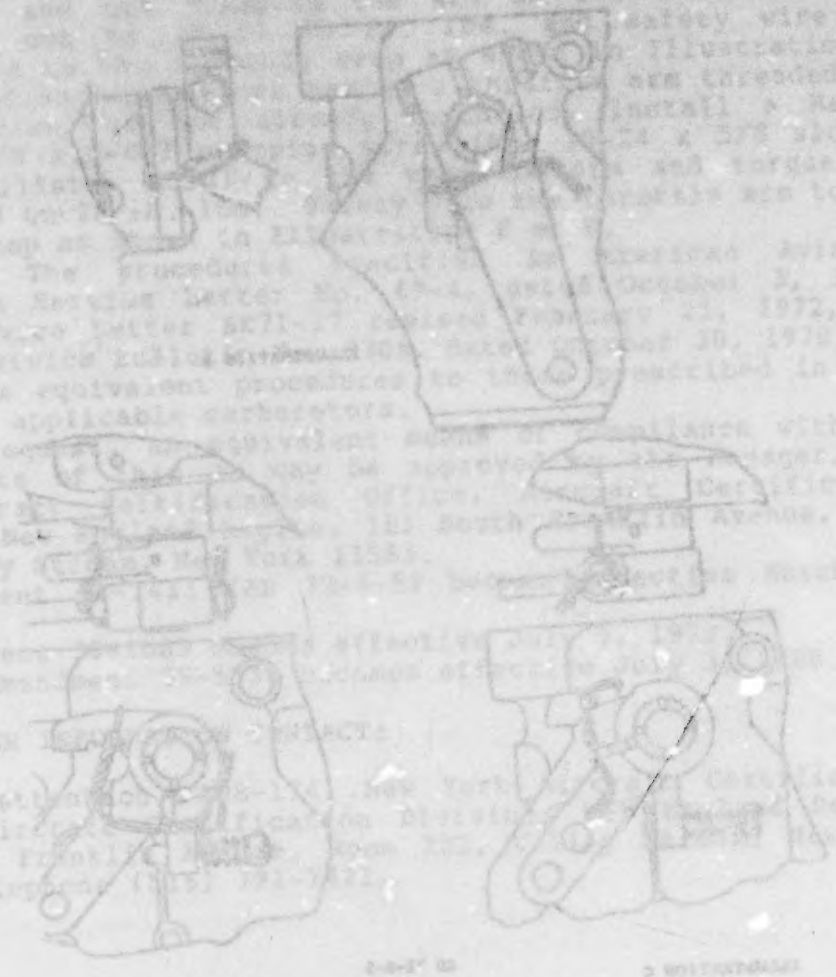


ILLUSTRATION D



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Mike Monroney Aeronautical Center
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Oklahoma City, Oklahoma 73125

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86-15-01 ROLLS-ROYCE LIMITED: Amendment 39-5346. Applies to Rolls-Royce RB211-22B, -535C, and -425 series turbofan engines. Compliance is required as indicated, unless already accomplished.

To prevent an uncontained stage 1 high pressure compressor (HPC) disk fracture, accomplish the following:

Remove from service stage 1 and 2 HPC disk assemblies identified by serial number in Appendix 3 of Rolls-Royce Alert Service Bulletin (ASB) RB.211-72-A7774, Revision 1, dated March 21, 1986, or FAA approved equivalent, at the next 04 module rework but not later than May 31, 1987.

NOTE: Module 04 rework is defined as any work carried out on any part of the 04 module after its removal from an engine for any reason other than use as a spare to transfer to another engine or to permit removal of the 03 module.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Rolls-Royce ASB RB.211-72-A7774, Revision 1, dated March 21, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Rolls-Royce Limited, Technical Publications Department, P.O. Box 31, Derby DE2 8BJ, England. This document also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-17, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective on August 14, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

AVION MARCEL DASSAULT (AMD-BA)
Airworthiness Directive
VOLUME II

86-15-02 AVION MARCEL DASSAULT-BREGUET AVIATION: Amendment 39-5355. Applies to Model Mystere-Falcon 50 series airplanes, serial numbers 24 through 146, 148 through 158, 160, 161, and 162. Compliance is required as indicated below. To prevent engine failure due to fuel starvation, accomplish the following, unless previously accomplished:

A. Within the next 21 days after the effective date of this AD, replace the actuators in the distributor blocks of the crossfeed valves and install a placard in accordance with Avion Marcel Dassault-Breguet Aviation Service Bulletin F52-28-17 (AMD-BA F50-182), dated April 4, 1986.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service bulletin from the manufacturer, may obtain copies upon request to Falcon Jet Corporation, Customer Support Department, Teterboro Airport, Teterboro, New Jersey 07608. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective July 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-15-04 GENERAL ELECTRIC COMPANY: Amendment 39-5353. Applies to General Electric CF6-80A/A1/A2/A3 turbofan engines.

Compliance is required as indicated, unless already accomplished.

To prevent cracking or uncontained failure of stage 1 high pressure turbine (HPT) disks, Part Numbers 9234M67 and 9367M45, inspect those serial number disks identified in, and in accordance with, General Electric CF6-80 Alert Service Bulletin (ASB) 72-446, dated June 1986, per the following schedule:

(a) Disks that have been previously inspected at the forward side embossment per Service Bulletin (SB) 72-248, dated August 12, 1983, or FAA approved equivalent, must be inspected at the aft side embossment at the next HPT exposure, or prior to accumulating 5,300 service cycles since new, whichever occurs first.

(b) Disks that have not been previously inspected at the forward side embossment per SB 72-248, dated August 12, 1983, or FAA approved equivalent, must be inspected at both the forward and aft side embossments at the next HPT exposure, or prior to accumulating 5,000 service cycles since new, whichever occurs first.

(c) Remove from service, prior to further flight, any disk with a tool mark or crack indication.

NOTE: Disks that have been previously inspected at both the forward and aft side embossments per CF6-80A Series Engine Manual GEK72501, Section 72-53-02, are in compliance with the inspection requirement of ASB 72-446 and do not need to be reinspected.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

General Electric ASB 72-446, dated June 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already obtained this document from the manufacturer, may obtain copies upon request to General Electric Company, Director of Product Support, 111 Merchant Street, Cincinnati, Ohio 45246. This document may also be examined at the Office of the Regional Counsel, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Room 311, Rules Docket Number

86-ANE-23, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment, 39-5353, becomes effective on July 23, 1986.

FOR FURTHER INFORMATION CONTACT:

Marc J. Bouthillier, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7085.

86-15-05 DEHAVILLAND AIRCRAFT OF CANADA, LTD.: Amendment 39-5357. Applies to Model DHC-7 airplanes, serial numbers 1 through 14 inclusive, certificated in any category. Compliance is required within 60 days after the effective date of this AD, unless previously accomplished. To assure proper crew warning in the event of the loss of the 400 Hz AC electrical power system, accomplish the following:

1. Modify the 400 Hz AC system in accordance with DeHavilland Service Bulletin 7-24-13, Revision A, dated September 10, 1982.

2. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service bulletin from the manufacturer, may obtain copies upon request to DeHavilland Aircraft of Canada, Ltd., Downsview, Ontario M3K 1Y5, Canada. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Harold N. Wantiez, Standardization Branch, ANM-113, FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168, telephone (206) 431-2977; or Mr. William White, Systems and Equipment Branch, ANE-173, FAA, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone (516) 791-6427.

AVION MARCEL DASSAULT (AMD-BA)
Airworthiness Directive
VOLUME II

86-15-06 AVIONS MARCEL DASSAULT-BREGUET AVIATION: Amendment 39-5363. Applies to AMD Falcon 10 series airplanes, serial numbers 1 thru 196 inclusive, and 198 thru 201 inclusive, certificated in any category. Compliance is required within 60 days after the effective date of this AD. To ensure the proper installation of the rudder servo actuator hydraulic lines, accomplish the following, unless already accomplished:

A. Modify the rudder servo actuator system in accordance with AMD-BA Service Bulletin F10-27-028 (0237), dated June 24, 1983.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service bulletin from the manufacturer, may obtain copies upon request to the AMD-BA Representative, c/o F.J.C., Teterboro Airport, Teterboro, New Jersey 07608. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment, 39-5363, becomes effective August 25, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SAAB FAIRCHILD
Airworthiness Directive
Final Copy of Telegram
VOLUME II

85-25-54 SAAB FAIRCHILD: Amendment 39-5359. Applies to Model SF-340A series airplanes, airliner version, certificated in any category. Compliance is required as indicated. To reduce the hazards associated with possible electrical arcing, prior to further flight accomplish the following:

A. Incorporate the following into the limitations section of the airplane flight manual. This may be accomplished by including a copy of this AD in the airplane flight manual.

(1) During all flight operations and ground operations with the engines running, deactivate the circuits providing power to the cabin internal overhead and window lights by first switching off these lights, and then opening circuit breakers number F24 and F25.

(2) During operations with cabin internal overhead and window lights deactivated, the reading light switch for Row B on the flight attendant's panel must be selected "ON."

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer, may obtain copies upon request to SAAB Fairchild, Product Support, S-58188, Linkoping, Sweden. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment, 39-5359, becomes effective August 4, 1986, as to all persons, except those persons to whom it was made immediately effective by telegraphic AD T85-25-54, issued December 13, 1985.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

T86-14-51 DEHAVILLAND: Telegram issued July 8, 1986. Applies to DeHavilland Model DHC-8 airplanes, certificated in any category, serial number 003 and subsequent. Compliance is required before further flight.

To preclude the uncommanded deployment of ground spoilers and roll control spoilers in the ground mode, accomplish the following:

A. Lockout circuit breaker "ROLL SPLRS CONT", location C7, left main bus in accordance with section A of the DeHavilland Alert Service Bulletin A8-27-25 dated July 3, 1986. Install a placard in the flight compartment, on the glareshield under the flight/taxi switch, to state the following: "GROUND SPOILERS AND ROLL CONTROL SPOILERS IN GROUND MODE ARE INOPERATIVE".

B. Insert a copy of this AD in the AFM Limitation Section. The elimination of all spoiler functions in ground mode increases landing distance and landing field length required by 15 percent when using flaps at 35 degrees (AFM, Figure 5.8.4) and 10 percent when using flaps at 15 degrees (AFM Supplement #9, Figure 5.8.7). With all spoiler functions in ground mode inoperative, there is negligible increase in the take-off distance required and the take-off run required.

C. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

C. Kallis or W. White, Systems Branch, FAA, New York Aircraft Certification Office, telephone number (516) 791-6427.

MCDONNELL DOUGLAS
Airworthiness Directive
Revision
VOLUME II

85-11-02 R1 MCDONNELL DOUGLAS: Amendment 39-5068 as amended by 39-5361. Applies to McDonnell Douglas DC-9-10, -20, -30, -40, -50, -80, and C-9 (Military) series airplanes (Fuselage Numbers 1 through 1242), certificated in any category.

To prevent elevator jamming which could result in loss of adequate aircraft control, accomplish the following within 300 flight hours after the effective date of this AD, unless already accomplished within the last 2500 flight hours.

A. Open access doors 3507 and 3608 to gain access to inspection area on lower elevator surface. (See Maintenance Manual, Chapter 6-11-3 for DC-9/C-9 or 6-23-00 for MD-80.)

B. Back off nut, P/N H20-8 or P/N LH7461T-080D, on rod end assembly, P/N 4918153-1 from its torqued position until three or more threads are exposed.

C. Using a properly calibrated torque wrench, check the initial running torque on each nut. The initial running torque must be a minimum of 18 inch-pounds:

1. If the minimum 18 inch-pound initial running torque is met, proceed to paragraph D., below.

2. If the initial running torque does not meet the 18 inch-pound minimum requirement, the nut must be replaced with a new H-20-8 or P/N LH7461T-080D nut which does meet the minimum 18 inch-pound initial running torque requirement.

D. After satisfying the initial minimum 18 inch-pound running torque requirement, retorque the nut on the rod end assembly to a final torque value of 400, plus or minus 50, inch-pounds.

E. Repeat the inspection requirements of paragraphs A. through D. of this AD at intervals not exceeding 2500 flight hours or 12 months, whichever occurs first, since last such inspection.

F. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

G. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplanes to a base to comply with the requirements of this AD.

H. Modification of elevator hydraulic boost cylinder attach rod ends in accordance with the Accomplishment Instructions of McDonnell Douglas DC-9 Service Bulletin 27-262, dated November 27, 1985, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region, constitutes terminating action for the repetitive inspection requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to McDonnell

Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-L65 (54-60). These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

Amendment 39-5068 became effective June 10, 1985.

This amendment 39-5361 becomes effective August 21, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Michael N. Asahara, Sr., Aerospace Engineer, Airframe Branch, ANM-122L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6319.

BOEING VERTOL
Airworthiness Directive
Revision
VOLUME II

84-10-51 R1 BOEING VERTOL COMPANY: Amendment 39-5024 as amended by Amendment 39-5352. Applies to Model 234 series helicopters, certificated in any category, equipped with forward main rotor drive shaft P/N 114D1245-7.

Compliance is required as indicated, unless already accomplished.

To prevent possible hazards in flight associated with cracking of the forward main rotor drive shaft, accomplish the following:

(a) Within 70 hours time in service after the effective date of this amendment or upon accumulation of 1,600 total hours time in service on the rotor shaft, whichever occurs later, and thereafter at intervals not to exceed 35 hours time in service from the last inspection, inspect the rotor drive shaft in accordance with paragraph 3, "Accomplishment Instructions," Boeing Vertol Service Bulletin No. 234-63-1009, dated June 29, 1984, or Revision 1 dated May 1, 1986, or an FAA-approved equivalent.

(b) Remove from service forward main rotor drive shafts having a crack and replace with a serviceable part prior to further flight.

(c) An equivalent method of compliance with this AD may be used when approved by the Manager, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

(d) Upon submission of substantiating data by an owner through an FAA Maintenance Inspector, the Manager, New York Aircraft Certification Office, FAA New England Region, may adjust the compliance times specified in this AD.

(e) The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to the Boeing Vertol Company, Boeing Center, P.O. Box 16858, Philadelphia, Pennsylvania 19142. These documents may also be examined at the Office of the Regional Counsel, Southwest Region, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas.

Amendment 39-5024 (50 FR 15539) became effective April 22, 1985, as to all persons except those persons to whom it was made immediately effective by telegraphic AD No. T84-10-51, issued May 3, 1984, which contained this amendment.

This Amendment 39-5352 becomes effective July 24, 1986.

FOR FURTHER INFORMATION CONTACT:

Murry Schoenberger, ANE-174, New York Aircraft Certification Office, Federal Aviation Administration, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone number (516) 791-7421.

BOEING
Airworthiness Directive
Revision
VOLUME II

83-01-05 R2 BOEING: Amendment 39-4542 as amended by amendment 39-5000 as further amended by amendment 39-5360. Applies to Models 727, 737-100, and 737-200 series airplanes certificated in any category.

Compliance required as indicated, unless already accomplished. To prevent undetected prolonged engine starter operation, accomplish the following:

A. Prior to February 23, 1986, unless already accomplished, install an FAA-approved system that will provide a positive indication to the flight crew of the normal and unwanted operation of each engine starter. Approval of any proposed system must be obtained from the FAA, Northwest Mountain Region, Seattle Aircraft Certirication Office, 9010 East Marginal Way South, Seattle, Washington.

Note: When specific complying systems are approved by the Seattle Aircraft Certification Office, the FAA Flight Operations Evaluation Board will review the system(s) for master minimum equipment list (MMEL) consideration.

B. Concurrent with the incorporation of an indicating system described in paragraph A, the airplane manual required by Subpart G of Part 121 (14 CFR Part 121) or Subpart C of Part 125 (14 CFR Part 125) of the Federal Aviation Regulations shall be revised to include:

1. A provision that the flight crew verify that the cockpit indicating system, required by paragraph A, indicates that the starter is de-energized after each engine start; and

2. Crew procedures, i.e., verifying start switch "off," closing the bleed valve of the affected engine, shutting down the affected engine, etc., to be accomplished when unwanted starter operation is indicated during ground and flight operations.

C. Alternative means of compliance with this AD which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, 9010 East Marginal Way South, Seattle, Washington.

D. A special flight permit may be issued in accordance with FAR 21.197 and 21.199 for the purpose of flying an aircraft which has exceeded the compliance period to a maintenance facility where the modification can be performed.

Amendment 39-4542 (48 FR 2962; January 24, 1983) became effective February 28, 1983.

Amendment 39-5000 (50 FR 6339; February 15, 1985) became effective February 23, 1985.

This amendment 39-5360 becomes effective August 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Stewart R. Miller, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region; telephone (206) 431-2969. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

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86-16-01 GOVERNMENT AIRCRAFT FACTORIES (GAF): Amendment 39-5364. Applies to Models N22B and N24A (all serial numbers) airplanes certificated in any category, unless Service Bulletin (S/B) No. NMD-27-34 (Mod N642) has been accomplished.

Compliance: Required within 100 hours time-in-service after the effective date of this AD or one calendar year after the effective date of this AD, whichever occurs first, unless already accomplished.

To prevent jamming of the rudder pedals accomplish the following:

(a) Modify the airplane sidewall structure and rudder pedals in accordance with Paragraph 2. "Accomplishment Instructions" of GAF S/B No. NMD-27-34 dated October 21, 1985.

(b) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to ferry aircraft to a maintenance base in order to comply with the requirements of this AD.

(c) An equivalent method of compliance with this AD if used, must be approved by the Manager, Western Aircraft Certification Office, ANM-170W, Northwest Mountain Region, FAA, Post Office Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Government Aircraft Factories, 226 Lormier Street, Fisherman's Bend, Port Melbourne, Victoria, Australia 3207, or FAA, Office of Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106 or the Western Aircraft Certification Office, 15000 Aviation Boulevard, Hawthorne, California 90009-2007.

This amendment becomes effective August 28, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Marshall Burquest, Western Aircraft Certification Office, ANM-172W, FAA, Post Office Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; Telephone (213) 297-1359.

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GROB WERKE GMBH
Airworthiness Directive
VOLUME I

86-16-02 GROB WERKE GMBH (Burkhart Grob): Amendment 39-5365. Applies to Models G103 TWIN II and G103A TWIN II ACRO gliders (serial numbers 3501 through 3715 and 3544-K-1 through 3709-K-45) certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent the failure of front cockpit airbrake operating lever, P/N 103B-4270, which could result in the loss of airbrake control, accomplish the following:

(a) Within the next 10 hours time-in-service after the effective date of this AD, and thereafter at intervals not to exceed 10 hours time-in-service after the last inspection, until compliance with Paragraph (c) is accomplished, visually inspect airbrake operating lever for cracks and buckling in accordance with Part 1 of the "Instructions" section of Grob Technical Information No. TM 315-29, dated October 1, 1985.

(b) If a defective lever is found during the inspection required by Paragraph (a) of this AD, before further flight, replace the airbrake operating lever with a reinforced airbrake operating lever in accordance with part 2 of the "Instructions" section of Grob Technical Information No. TM 315-29, dated October 1, 1985, and Grob Repair Instructions No. 315-29, dated October 1, 1985.

(c) Within the next 50 hours time-in-service but no later than 90 days after the effective date of this AD, replace any airbrake operating lever not replaced in accordance with Paragraph (b) of this AD with a reinforced airbrake operating lever in accordance with Part 2 of the "Instructions" section of Grob Technical Information No. TM 315-29, dated October 1, 1985, and Grob Repair "Instructions" No. 315-29, dated October 1, 1985.

NOTE: Reinforced airbrake operating lever does not have a new part number. It can be identified as it is 40 mm wide versus 30 mm for the original part.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, Telephone No. 513.38.30 ext. 2710, or the Manager, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone No. (516) 791-6680.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager,

Brussels Aircraft Certification Office, or the Manager, New York Aircraft Certification Office, may adjust the compliance time specified in this AD.

Grob Technical Information No. 315-29, dated October 1, 1985, and Grob Repair Instructions No. 315-29, dated October 1, 1985, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Grob Systems, Inc., Aircraft Division, I-75 and Airport Drive, Bluffton, Ohio 45817. These documents also may be examined at the Office of Regional Counsel, Room 311, Rules Docket 86-ANE-30, FAA, New England Region, 12 New England Executive Park, burlington, Massachusetts 01803, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective August 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, Telephone 513.38.30 ext. 2710, or John J. Maher, ANE-172, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone No. (516) 791-6221.

ALLISON GAS TURBINE DIVISION
Airworthiness Directive
VOLUME I

86-16-03 ALLISON GAS TURBINE DIVISION, GENERAL MOTORS CORP. (ALLISON, formerly DETROIT DIESEL ALLISON): Amendment 39-5366. Applies to Allison Model 250-C28B and -C28C engines installed in aircraft certificated in any category. The following engine models and turbine serial numbers are affected:

ENGINE MODEL	ENGINE SERIAL NUMBER	TURBINE SERIAL NUMBER
250-C28B	CAE 860011 thru 860787	CAT 70011 thru 70804
250-C28C	CAE 280001 thru 280097	CAT 28001 thru 28098

EXCEPT: Existing Model 250-C28B and -C28C engines which have incorporated Allison Commercial Engine Alert Bulletin CEB-A-72-2138 dated May 15, 1986, or FAA approved equivalent.

Compliance is required as indicated unless already accomplished.

To prevent possible internal oil fires that can cause cracks under the rim of the first stage turbine wheel which can progress to an on-speed failure/uncontained failure, accomplish the following:

(a) Maintain a record of oil consumed and flight hours, beginning on the effective date of this AD, until compliance with Paragraph (c).

(b) Troubleshoot and repair, before further flight, any engine that exhibits any of the following conditions:

(1) High oil consumption (1 quart in 5 hours, .05 gallons per hour, or .19 liters per hour) or significant step change of 100% or greater in oil consumption.

(2) Excessive smoking on deceleration and/or shutdown with or without associated high oil consumption or significant increase in oil consumption.

NOTES: (1) The checks required by Paragraph (a), (b)(1), and (b)(2) of this AD may be performed by the pilot and must be recorded in accordance with FAR 43.9.

(2) Allison Model 250-C28 Series Operations and Maintenance/Overhaul Manual addresses troubleshooting and repairs.

(c) Install Number 8 Bearing Scavenge Line Air/Oil Centrifugal Separator Assembly, P/N 23034772, in accordance with Allison Commercial Engine Alert Bulletin CEB-A-72-2138 dated May 15, 1986, or FAA approved equivalent, not later than January 31, 1987.

NOTE: Installation of the Number 8 Bearing Scavenge Line Air/Oil Centrifugal Separator Assembly, P/N 23034772, does not relieve the operator of proper monitoring of oil consumption,

changes in oil consumption or smoking during operation as described in the Model 250-C28 Series Engine Operations and Maintenance Manual.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Chicago Aircraft Certification Office may adjust the compliance time specified in this AD.

Allison Commercial Engine Alert Bulletin CEB-A-72-2138 dated May 15, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain a copy upon request to Allison Gas Turbine Division, General Motors Corp., P.O. Box 420, Indianapolis, IN 46206-0420. This document also may be examined at the Office of Regional Counsel, FAA, ATTN: Rules Docket No. 86-ANE-28, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective August 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Royace H. Prather, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone 312-694-7132.

86-16-04 BRITISH AEROSPACE: Amendment 39-5383. Applies to Model 3101 (Serial Numbers 003 through 026, 028, 034, 035, 037, and 038) airplanes certificated in any category which have incorporated AMC Baggage Pod Modification STC No. SA5900SW.

Compliance: Required within the next 50 landings after the effective date of this AD, unless already accomplished.

NOTE: If landings are not recorded, one hour time-in-service (TIS) equals two landings.

To prevent possible scoring and failure of the two flap torque tubes, and subsequent loss of control of the aircraft, accomplish the following:

(a) Inspect the flap torque shaft in accordance with BAe Alert Service Bulletin (ASB) No. 27-JA850949 dated January 8, 1986, Section 2 B, "Inspection/Repair", Subparagraph (1)

(1) If scored in excess of 0.030 inches in depth, before further flight replace torque shaft with a serviceable shaft.

(2) If scoring does not exceed 0.030 inches in depth:

(i) Before further flight repair in accordance with BAe ASB No. 27-JA850949 dated January 8, 1986, Section 2B, "Inspection/Repair", Subparagraph (3), and

(ii) Inspect for cracks using a dye penetrant inspection to establish integrity of the shaft. If cracks are found, before further flight, replace torque shaft with a serviceable shaft.

(b) Rework panels F21 and F22 in accordance with Arkansas Modification Center, Inc. (AMC) Mandatory Service Bulletin (MSB) No. 25-0001(-1) dated May 13, 1986, Section 2A, "ACCOMPLISHMENT INSTRUCTIONS".

(c) Airplanes may be flown with the flap system rendered inoperative in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, FAA, Southwest Region, Special Programs Branch, ASW-190, 4400 Blue Mound Road, Post Office Box 1689, Fort Worth, Texas 76101.

All persons affected by this AD may obtain copies of Arkansas Modification Center, Inc., (AMC) Mandatory Service Bulletin (MSB) No. 25-0001(-1) dated May 13, 1986, referred to herein upon request to the Arkansas Modification Center, Inc., Post Office Box 3356, Adams Field, Little Rock, Arkansas 72203, and Alert Service Bulletin No. 27-JA85-0949 dated January 8, 1986, referred to herein upon request to the British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041 or

FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on August 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. William Simmons, FAA, ASW-190, 4400 Blue Mound Road, Fort Worth, Texas 76101; Telephone (512) 824-2556 or Mr. John P. Dow, Sr., FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106.

BELL
Airworthiness Directive
VOLUME I

86-16-11 BELL HELICOPTER TEXTRON, INC.: Letter issued August 12, 1986. Applies to all Bell Helicopter Model 412 helicopters, S/N 33001 through 33118, 33120 and 33121, certified in any category.

Compliance required as indicated unless already accomplished.

To prevent failure of the tail rotor control, accomplish the following:

(a) Within 20 hours' time in service after receipt of this AD, visually inspect the T/R hub assembly P/N 212-011-701-3, in accordance with Part I of Bell Helicopter Textron, Inc. (BHTI), Alert Service Bulletin (ASB) 412-86-25, Revision "A," dated July 23, 1986.

(1) If the (P/N) 212-011-716-1 T/R trunnion housing is cracked or there is axial play in the T/R trunnion, or if there are excess balance washers, comply with Part II of the Alert Service Bulletin before further flight.

(2) Repeat this inspection every 20 hours' time in service until paragraph (b) of this AD is accomplished.

(b) Remove the 212-011-701-1 T/R hub and blade assembly and inspect the trunnion bearing housing, P/N 212-011-716-1, as detailed in Part II of BHTI ASB 412-86-25, Revision "A," dated July 23, 1986, within 150 hours' time in service or within 60 days after the issue date of this AD, whichever occurs first. Replace any housing having an end web thickness of .059 inches or less with a serviceable part.

An alternate method of compliance or adjustment of the compliance time, which provides an equivalent level of safety, may be approved by the Manager, Helicopter Certification Branch, Aircraft Certification Division, FAA, Southwest Region.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Tom K. Henry, Helicopter Certification Branch, Aircraft Certification Division, ASW-170, FAA, Southwest Region, P.O. Box 1689, Fort Worth, Texas 76101, (817) 624-5168.

BRITTEN-NORMAN LTD
Airworthiness Directive
Final Copy of Letter
VOLUME I

86-07-02 BRITTEN-NORMAN LIMITED: Amendment 39-5382. Applies to all BN-2A Mark III Trislander Series (all Models and Serial Numbers) and BN-2 Islander Series (all Models and Serial Numbers) airplanes.

Compliance: Required prior to further flight after the effective date of this AD, unless already accomplished within the last 100 hours time-in-service (TIS), and thereafter at intervals not to exceed 100 hours TIS from the last inspection.

To preclude possible failure of the main gear, loss of control and possible catastrophic secondary failures to the airplane, accomplish the following:

(a) Inspect the junction of the torque link lug and upper case for cracks by visual means with 10-power magnifying glass or by dye penetrant.

(b) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where the inspection specified in paragraph (a) above can be accomplished.

(c) If cracked parts are found as a result of the inspection in paragraph (a) of this AD, prior to further flight replace the cracked parts with airworthy units.

(d) If the landing gear is replaced, only equal pairs of the same manufacturer are approved as replacement parts. Mixing of different manufacturer landing gears is not authorized.

(e) The intervals between the repetitive inspections required by this AD may be adjusted up to 10 percent of the specified interval to allow accomplishment of these inspections concurrent with other scheduled maintenance on the airplane.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Aircraft Certification Office, AEU-100, Europe, Africa and Middle East, FAA, c/o American Embassy, B-1000 Brussels, Belgium.

CAA-UK Airworthiness Directive No. 005-03-86 issued March 14, 1986, which uses Britten-Norman Campaign Wire BN-2/SB173 as its Mandatory Service Bulletin dated March 14, 1986, pertains to the subject of this AD.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Pilatus Britten-Norman LTD Bembridge, Isle of Wight, England, or the FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on August 13, 1986, to all persons except those to whom it has already been made effective by priority letter from the FAA dated March 28, 1986, and is identified as AD 86-07-02.

FOR FURTHER INFORMATION CONTACT:

Mr. Ted Ebina, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium; Telephone (322) 513.38.30; or Mr. Harvey Chimerine, FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

ALLISON GAS TURBINE
Airworthiness Directive
Revision
VOLUME I

85-25-07 R1 ALLISON GAS TURBINE DIVISION, GENERAL MOTORS CORP. (ALLISON, formerly DETROIT DIESEL ALLISON): Amendment 39-5188 as amended by Amendment 39-5368. Applies to Allison Model 250-C28 and -C30 Series engines which incorporate outer combustion case assembly P/N 6899237 or 23009569, installed in aircraft certificated in any category.

Compliance is required as indicated unless already accomplished.

To prevent possible cracks at the butt or seam weld on outer combustion case P/Ns 6899237 and 23009569 from progressing to a point where the case could rupture and cause an inflight sudden loss of power/shutdown, accomplish the following:

(a) Model 250-C28B, -C28C, -C30, -C30P, -C30R, and -C30S engines

Inspect outer combustion assembly P/N 6899237 or 23009569 in accordance with the following:

(1) Prior to next flight, and at daily intervals thereafter, until compliance with Paragraphs (b) or (c), as appropriate, is accomplished, using a bright light (flashlight or equivalent) and mirror, inspect all of the outer combustion case welds which are located as follows:

(i) Horizontal butt welds on outer surface and between the air discharge tube attachment flanges and gas producer attachment flange on forward side.

(ii) Both forward and aft circumferential seam welds between outer case and inner liner.

(iii) Welds for attaching bosses for fuel nozzle, both combustion case drain valves, and both igniter plugs.

NOTES:

1. Pay particular attention to welds in areas defined in Sub-paragraphs (i) and where these horizontal welds meet the circumferential welds defined in Sub-paragraph (ii).

2. The above daily inspection may be performed by the pilot and must be recorded in accordance with FAR Section 43.9.

Detection of any crack(s) requires removal of the outer combustion case from service before further flight.

(2) Within the next five hours time-in-service, unless already accomplished within the last 20 hours time-in-service, and thereafter at intervals not to exceed 25 hours time-in-service from the last inspection, until compliance with Paragraphs (b) or (c), as appropriate, is accomplished, in addition to Paragraph (1) above, inspect the areas of horizontal butt weld between the air discharge tube attachment

flanges and gas producer attachment flange on the forward side of the outer combustion case as follows:

(i) Apply dye penetrant, dye check, or other appropriate penetrant to the designated areas which will reveal crack(s), or

(ii) Apply a soap solution to the designated areas and, using a suitable power source to motor engine to at least 20 percent N1, look for bubbles to reveal if any crack(s) are present.

Detection of any crack(s) requires removal of the outer combustion case from service before further flight.

(b) Model 250-C30 and -C30S engines installed in Sikorsky Model S-76A rotorcraft

Within the next 150 hours time-in-service after the effective date of this AD, but not later than January 31, 1986, perform the following:

Replace/modify outer combustion case assembly P/Ns 6899237 and 23009569 with/to P/Ns 23030910 and 23030911, respectively, in accordance with Allison CEB-A-72-2113/3115, Revision 2, dated January 15, 1986, or prior issues, or FAA approved equivalent.

(c) Model 250-C28B, -C28C, -C30, -C30P, -C30R, and -C30S engines installed in other than Sikorsky S-76A rotorcraft

At the next turbine repair/overhaul event, but not later than June 30, 1986, perform the following:

Replace/modify outer combustion case assembly P/Ns 6899237 and 23009569 with/to P/Ns 23030910 and 23030911, respectively, in accordance with Allison CEB-A-72-2113/3115, Revision 2, dated January 15, 1986, or prior issues, or FAA approved equivalent.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Chicago Aircraft Certification Office, may adjust the compliance time specified in this AD.

Allison CEB-A-72-2113/3115, Revision 2, dated January 15, 1986, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Allison Gas Turbine Division, General Motors Corp., P.O. Box 420, Indianapolis, Indiana 46206-0420. This document also may be examined at the Office of Regional Counsel, FAA, ATTN: Rules Docket No. 85-ANE-43, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment amends Amendment 39-5188, 51 FR 732, AD 85-25-07, effective January 6, 1986.

This Amendment 39-5368 becomes effective August 15, 1986, as to all persons except those persons to whom it was made immediately effective by priority letter AD 85-25-07 R1, issued January 22, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Royace H. Prather, Chicago Aircraft Certification Office. Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone 312-694-7132.

CESSNA
Airworthiness Directive
Correction
VOLUME I

86-15-07 CESSNA: Amendment 39-5358. Applies to the following Models and Serial Numbers of airplanes certificated in any category which have been modified by the installation of an engine larger in size and/or horsepower than the Continental O-200-A:

MODELS	SERIAL NUMBERS
150	17001 thru 17999
	59001 thru 59018
150A	15059019 thru 15059350
150B	15059351 thru 15059700
150C	15059701 thru 15060087

Compliance: Required as indicated, unless already accomplished.

To assure operation of the airplane within the approved center of gravity (cg) limits, accomplish the following:

(a) Within the next 25 hours time-in-service (TIS) after the effective date of this AD, accomplish the following:

(1) Weigh the airplane to determine the empty weight (W_1) and calculate the cg (cg_1). The airplane, as weighed, must include full oil and unusable fuel (21 lbs at fuselage station 40.0 for standard fuel tanks).

(2) Add pilot weight (170 lbs at fuselage station 39.0) to the empty weight ($W_1+170=W_2$) and calculate the cg (cg_2) for this condition. If this cg is forward of fuselage station 32.2, add ballast between fuselage stations 70.69 and 76.44. (This was the location of the battery prior to the engine modification.)

(3) Determine the amount of ballast (B) required from the following equation:

$$B = \frac{(D) \times (W_2)}{X}$$; where,

B = weight in pounds of ballast required by this AD.

D = distance in inches the empty A/C (with pilot) cg must be moved aft in order to comply with this AD ($D=32.2-cg_2$). Obtain cg_2 from paragraph (2) above.

W_2 = empty weight in pounds of the airplane plus pilot determined in paragraph (2) above.

X = distance in inches from the point where the ballast is installed to the required location of the new cg (fuselage station 32.2 in this case). Using the battery box location, X = 41.36.

(4) Fabricate the channel detailed in Figure 1. Mount the channel between fuselage stations 70.69 and 76.44 using the existing 041328-3 brackets. Attach with MS20470-AD4 rivets through the existing holes in brackets. Install the ballast in accordance with Figure 1. If ballast exceeds 60 pounds, contact the Wichita Aircraft Certification Office at the address given in paragraph (d) below for assistance.

(5) If the empty weight, as calculated in (1) above, plus the ballast exceeds 1142 lbs, prior to further flight, fabricate and install on the instrument panel a placard with a minimum letter size of 1/8 inch which states, "WARNING: THIS AIRPLANE LIMITED TO SINGLE OCCUPANT". If the empty weight exceeds 1195 lbs., equipment must be removed in order that this weight is not exceeded. The 1142 lbs and 1195 lbs are weight limitations established by Civil Air Regulations 3.74(b)(1) and 3.74(b)(2), respectively.

(b) Airplanes which were weighed at the time of installation of the larger engine and have an empty weight cg (including pilot, oil and unusable fuel) aft of fuselage station 32.2 are exempt from paragraphs (a)(1), (a)(2), (a)(3) and (a)(4) of this AD.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

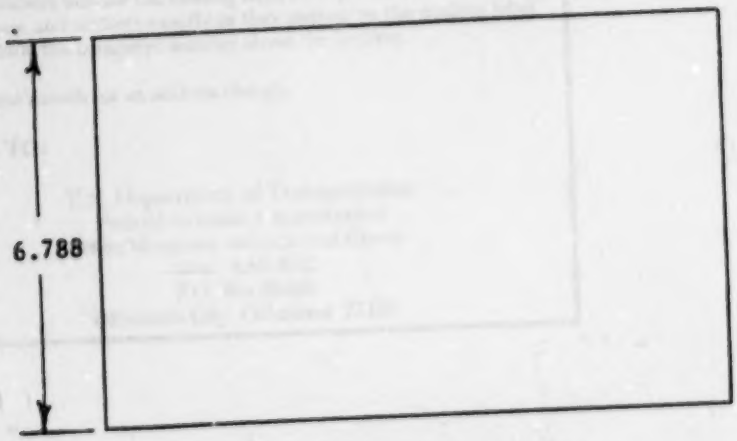
(d) An equivalent method of compliance with this AD may be used if approved by the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4400.

This amendment, 39-5358, becomes effective July 24, 1986.

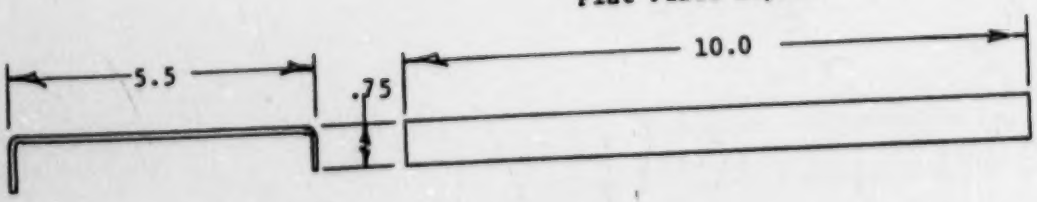
FOR FURTHER INFORMATION CONTACT:

Mr. Douglas W. Haig, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4409.

MATERIAL: 2024-T3
THICKNESS: .040
BEND RADII: .125
SCALE: 1/2
DIMENSIONS: Inches
NOTE: Lead ballast can be stacked sheet stock, ingot, or bar stock. Attach sheet stock with a minimum of 4-AN4 bolts or equivalent. Attach ingots or bar stock with a minimum of 2-AN4 bolts or equivalent per piece of lead, install a large diameter washer, such as an AN 970-4 under both the bolt head and nut. Use either a locknut or a castellated nut with cotter pin.

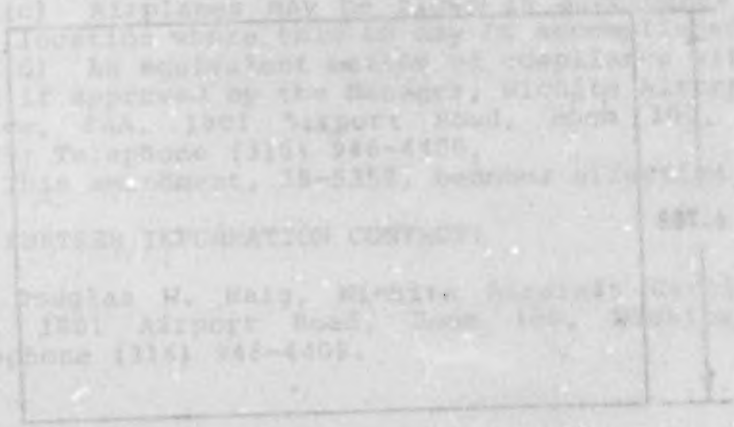


Flat Plate Layout



CHANNEL

FIGURE 1



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86-16-04 BRITISH AEROSPACE: Amendment 39-5383. Applies to Model 3101 (Serial Numbers 003 through 026, 028, 034, 035, 037, and 038) airplanes certificated in any category which have incorporated AMC Baggage Pod Modification STC No. SA5900SW.

Compliance: Required within the next 50 landings after the effective date of this AD, unless already accomplished.

NOTE: If landings are not recorded, one hour time-in-service (TIS) equals two landings.

To prevent possible scoring and failure of the two flap torque tubes, and subsequent loss of control of the aircraft, accomplish the following:

(a) Inspect the flap torque shaft in accordance with BAe Alert Service Bulletin (ASB) No. 27-JA850949 dated January 8, 1986, Section 2 B, "Inspection/Repair", Subparagraph (1)

(1) If scored in excess of 0.030 inches in depth, before further flight replace torque shaft with a serviceable shaft.

(2) If scoring does not exceed 0.030 inches in depth:

(i) Before further flight repair in accordance with BAe ASB No. 27-JA850949 dated January 8, 1986, Section 2B, "Inspection/Repair", Subparagraph (3), and

(ii) Inspect for cracks using a dye penetrant inspection to establish integrity of the shaft. If cracks are found, before further flight, replace torque shaft with a serviceable shaft.

(b) Rework panels F21 and F22 in accordance with Arkansas Modification Center, Inc. (AMC) Mandatory Service Bulletin (MSB) No. 25-0001(-1) dated May 13, 1986, Section 2A, "ACCOMPLISHMENT INSTRUCTIONS".

(c) Airplanes may be flown with the flap system rendered inoperative in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, FAA, Southwest Region, Special Programs Branch, ASW-190, 4400 Blue Mound Road, Post Office Box 1689, Fort Worth, Texas 76101.

All persons affected by this AD may obtain copies of Arkansas Modification Center, Inc., (AMC) Mandatory Service Bulletin (MSB) No. 25-0001(-1) dated May 13, 1986, referred to herein upon request to the Arkansas Modification Center, Inc., Post Office Box 3356, Adams Field, Little Rock, Arkansas 72203, and Alert Service Bulletin No. 27-JA85-0949 dated January 8, 1986, referred to herein upon request to the British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041 or

FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on August 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. William Simmons, FAA, ASW-190, 4400 Blue Mound Road, Fort Worth, Texas 76101; Telephone (512) 824-2556 or Mr. John P. Dow, Sr., FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106.

86-16-05 BOEING: Amendment 39-5379. Applies to Model 747 series airplanes listed in Boeing Service Bulletin 747-53-2220, Revision 1, dated October 10, 1983, certificated in any category.

To detect corrosion in the aft pressure bulkhead web and lower chord accomplish the following unless already accomplished:

A. Perform an inspection for corrosion of the aft pressure bulkhead lower web and the lower chord of Body Station 2360 bulkhead in accordance with Boeing Service Bulletin 747-53-2220, Revision 1, dated October 10, 1983, or later FAA-approved revisions, in accordance with the following schedule after the effective date of this AD:

1. Within 6 months for airplanes that have accumulated over 40,000 flight hours on the effective date of this AD;

2. Within 12 months for airplanes that have accumulated 20,000 to 40,000 flight hours on the effective date of this AD; and

3. Within 24 months or upon the accumulation of 20,000 flight hours, whichever occurs later.

B. For airplanes on which the aft pressure bulkhead lower web and the lower chord of Body Station 2360 bulkhead have not been modified with the reworked drain hole, application of leveling compound, trimming of insulation blanket, and an application of corrosion preventive compound in accordance with Boeing Service Bulletin 747-53-2220, Revision 1, dated October 10, 1983, or later FAA-approved revisions, repeat the inspections required by paragraph A., above, at intervals not to exceed three and one-half years.

C. For airplanes on which the aft pressure bulkhead lower web and the lower chord of Body Station 2360 bulkhead have been modified with the reworked drain hole, application of leveling compound, trimming of insulation blanket, and an application of corrosion preventive compound in accordance with Boeing Service Bulletin 747-53-2220, Revision 1, dated October 10, 1983, or later FAA-approved revisions, repeat the inspections required by paragraph A., above, at intervals not to exceed seven years.

D. If any corrosion is found in the aft pressure bulkhead lower web and the lower chord of Body Station 2360 bulkhead, repair before further flight in accordance with Boeing Service Bulletin 747-53-2220, Revision 1, dated October 10, 1983, or later FAA-approved revisions.

E. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety,

may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes unpressurized to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-16-06 BOEING: Amendment 39-5380. Applies to all Model 747 airplanes, certificated in any category, listed in Boeing Alert Service Bulletin 747-25A2696, Revision 1, dated January 31, 1986, that are equipped with the cool gas generator inflation systems. To ensure that the escape slide inflation system operates properly, accomplish the following, unless already accomplished:

A. Within three months after the effective date of this AD, inspect the escape slide inflation system to verify the installation of acceptable self-locking nuts and replace defective nuts, if necessary, in accordance with Boeing Alert Service Bulletin 747-25A2696, Revision 2, dated May 2, 1986, or later FAA-approved revisions.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Roger S. Young, Airframe Branch, ANM-120S; telephone (206) 431-2929. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-16-07 SAAB-FAIRCHILD: Amendment 39-5381. Applies to Model SF-340A airplanes listed in Service Bulletin SF340-27-028, Revision 1, dated August 14, 1985, certificated in any category. Compliance is required within 60 days after the effective date of this AD, unless previously accomplished. To prevent uncommanded pitch trim inputs, accomplish the following:

1. Modify the elevator pitch trim synchronizer in accordance with SAAB-Fairchild Service Bulletin SF340-27-028, Revision 1, dated August 14, 1985.

2. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to SAAB-Fairchild, Product Support, S-58188, Linkoping, Sweden. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-16-08 MCDONNELL DOUGLAS: Amendment 39-5375. Applies to McDonnell Douglas Model DC-10 and KC-10A (Military) series airplanes, certificated in any category. To preclude a potential unsafe condition from loss of fuel shutoff and fire extinguishing capabilities, accomplish the following within the next 30 days after the effective date of this AD, unless accomplished within the last 15 days:

A. Perform an initial purging of the wing spar mounted engine No. 1, No. 2, and No. 3 fuel fire shutoff valves in accordance with the gate groove purging procedure specified in McDonnell Douglas DC-10 Alert Service Bulletin A28-55, Revision 1, dated July 17, 1986.

B. Repeat the valve gate groove purging in accordance with the above alert service bulletin at intervals not to exceed 45 days, or 500 hours' time in service, whichever occurs first.

C. An alternate means of compliance with this AD which provides an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplane to a base for accomplishment of the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-750 (54-60). These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This Amendment becomes effective August 18, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Roy A. McKinnon, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6327.

BRITISH AEROSPACE VISCOUNT
Airworthiness Directive
VOLUME II

86-16-09 BRITISH AEROSPACE VISCOUNT: Amendment 39-5377. Applies to Vickers Viscount Model 800 series airplanes, certificated in any category. Compliance is required as indicated, unless previously accomplished. To prevent nose landing gear collapse as a result of a faulty hydraulic cut out valve, accomplish the following:

A. Within the next 1,000 hours time-in-service or nine months after the effective date of this AD, whichever occurs first, modify the cut out valve, Part Number AIR 41916, in accordance with Automotive Products Modification Standard SA 3490, dated December 16, 1959 (reference BAe Technical News Sheet No. 232, Issue 1, dated August 5, 1985).

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to British Aerospace, Inc., Box 17414, Dulles International Airport, Washington, D.C. 20041. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Goller, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-16-10 CANADAIR: Amendment 39-5378. Applies to all Canadair CL-44D4 and CL-44J airplanes certificated in any category. Compliance required as indicated, unless previously accomplished.

To prevent failure of the aft attachment lugs on the main landing gear upper forging, P/N 44-87573-2, accomplish the following, unless already accomplished.

A. Within the next 30 days after the effective date of this Airworthiness Directive (AD), and at intervals thereafter not to exceed 2000 hours time-in-service or one year, whichever occurs first:

1. Remove the parts shown in Figure 1 of Canadair Service Information Circular (SIC) No. 419-CL44, dated May 18, 1978, from both main landing gear legs: jack attach bracket assemblies, P/N 44-87593; spacers, P/N 44-87639; pins, P/N 44-87725-2; attaching parts, and bushings, P/N 44-87624-2, if necessary.

2. Inspect the bore of the upper and lower jack attachment lugs of the left and right main gear leg upper forgings, P/N 44-87573-2, for cracks, using fluorescent penetrant procedures.

3. Replace cracked parts, prior to further flight, with serviceable parts of the same part number which have been inspected in accordance with the requirements of this AD.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the inspections and replacement of parts required by this AD.

D. Upon the request of an operator, an FAA Maintenance Inspector, subject to approval by the Manager, New York Aircraft Certification Office, FAA, New England Region, may adjust the inspection times specified in this AD to permit compliance at an established inspection period of that operator if the request contains substantiating data to justify the change for that operator.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Canadair Limited, Commercial Aircraft Technical Services, Box 6087, Station A, Montreal, Quebec H3C 3G9, Canada. These documents may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Valley Stream, New York.

This Amendment becomes effective September 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Lester Lipsius, Aerospace Engineer, Airframe Branch, ANE-172, New York Aircraft Certification Office, FAA, New England Region, 181 South Franklin Avenue, Valley Stream, New York 11581; Telephone Number (516) 791-6220.

DEHAVILLAND
Airworthiness Directive
VOLUME II

86-16-12 DeHAVILLAND: Amendment 39-5389. Applies to Model DHC-3 (all serial numbers) airplanes certificated in any category.

Compliance: Required as indicated, after the effective date of this AD, unless already accomplished.

To preclude loss of elevator control and to ensure proper operation of the control system, accomplish the following inspections and parts replacement:

(a) Within 25 hours time-in-service (TIS), after the effective date of this AD, visually inspect the following parts:

(1) The elevator pushrod, and the elevator pushrod to rear quadrant attachment bolt, for bending, in accordance with "ACCOMPLISHMENT INSTRUCTIONS" in DeHavilland Service Bulletins (S/B) No. 3/35, Revision A, dated April 11, 1980, and S/B No. 3/43, dated January 18, 1985.

(2) The threaded shank of the elevator pushrod rod ends, for cracks.

(3) All elevator control system cables and pulleys for damage or distortion.

(b) Replace unserviceable parts, prior to further flight, with serviceable parts as follows:

(1) Elevator pushrod, with new pushrod Part Number (P/N) C3-CF-633-1, in accordance with "ACCOMPLISHMENT INSTRUCTIONS" in DeHavilland S/B No. 3/35, Revision A, dated April 11, 1980.

(2) Elevator pushrod to rear quadrant attachment bolt with a new NAS1954-24D bolt, in accordance with paragraph (c) of this AD.

(3) Elevator control system cables and pulleys in accordance with the applicable section of the aircraft maintenance manual.

NOTE: When a parked DHC-3 airplane has been subjected to wind gusts of 60 mph or greater (including helicopter or jet blasts) damage may occur to the elevator control system, and the requirements specified in paragraphs (a) and (b) of this AD should be accomplished again.

(c) If the elevator pushrod to rear quadrant attachment bolt is replaced with a NAS1954-24D bolt, replace the associated hardware and in addition, replace the rudder pushrod to rear quadrant attachment bolt with a NAS1954-24D bolt and the associated hardware in accordance with "ACCOMPLISHMENT INSTRUCTIONS" in DeHavilland S/B No. 3/43 dated January 18, 1985. Torque nuts to 65 in-pounds prior to installation of cotter pins.

(d) If no damage is found during the inspection as required by paragraph (a) of this AD, within 60 days after the effective date of this AD, unless already accomplished:

(1) Replace the elevator pushrod in accordance with paragraph (b)(1) of this AD, and

(2) Replace the elevator and rudder pushrod to rear quadrant attachment bolts in accordance with paragraph (c) of this AD.

(e) The airplane may be flown in accordance with Federal Aviation Regulations (FAR) 21.197 to a location where the requirements of this AD may be accomplished.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, New York Aircraft Certification Office, ANE-170, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

(g) Upon submission of substantiating data by an owner or operator, through an FAA Maintenance Inspector, the Manager, New York Aircraft Certification Office, FAA, New England Region, may adjust the compliance intervals specified in this AD.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to DeHavilland Aircraft of Canada, Ltd., Downsview, Ontario, Canada, M3K 1Y5 or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on August 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Lester Lipsius, Airframe Branch, ANE-172, New York Aircraft Certification Office, FAA, New England Region, 181 South Franklin Avenue, Valley Stream, New York 11587; telephone (516) 791-6220.

PRATT & WHITNEY
Airworthiness Directive
VOLUME II

86-09-02 R1 PRATT AND WHITNEY: Amendment 39-5277 as amended by Amendment 39-5372. Applies to Pratt and Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR turbofan engines.

Compliance is required as indicated unless already accomplished.

To prevent outer combustion case rupture due to cracking and distress of combustion chambers and subsequent impingement of combustion gases on the case inner wall, inspect for circumferential cracking and misalignment, and remove and repair as necessary, any part number (P/N) combustion chambers, except P/N's 5001958-02 and 5001959-02, in accordance with the procedures defined in PW SB 5639, Revision 1, dated March 21, 1986, or FAA approved equivalent, per the following:

All combustion chambers, regardless of their category, must be inspected initially within the next 1,000 hours or 1,000 cycles time in service (TIS), whichever occurs first after May 19, 1986; or in accordance with their respective threshold requirements of paragraph (a) or (b) below, whichever occurs later. Repetitive inspection is required thereafter at intervals not to exceed those specified in paragraph (c) below.

(a) On engines being operated under an engine condition monitoring (ECM) program, inspect the combustion chambers in accordance with the following intervals:

(1) Category 1A chambers on or before 11,000 hours or 9,000 cycles, whichever occurs first, time since new (TSN) or time since 2 through 6 liner replacement (TSLR).

(2) Category 1B chambers on or before 9,000 hours or 7,500 cycles, whichever occurs first, TSN or TSLR.

(3) Category 2A chambers on or before 8,500 hours or 6,000 cycles time since repair (TSR), whichever occurs first.

(4) Category 2B chambers on or before 7,000 hours or 5,000 cycles TSR, whichever occurs first.

(5) Category 3 chambers on or before 4,500 hours or 3,000 cycles TSR, whichever occurs first.

(6) Remove from service prior to further flight, chambers with cumulative circumferential cracking greater than 8 inches in any 1 liner, or axial misalignment of adjacent cross-over tubes greater than 0.250 inch.

(7) Thereafter, chambers must be reinspected at intervals as specified in paragraph (c) below.

(b) On engines not being operated under an ECM program, inspect the combustion chambers in accordance with the following intervals:

(1) Category 1A chambers on or before 9,000 hours or 6,500 cycles, whichever occurs first, TSN or TSLR.

(2) Category 1B chambers on or before 7,000 hours or 5,000 cycles, whichever occurs first, TSN or TSLR.

(3) Category 2A chambers on or before 6,500 hours or 5,000 cycles TSR, whichever occurs first.

(4) Category 2B chambers on or before 5,000 hours or 4,000 cycles TSR, whichever occurs first.

(5) Category 3 chambers on or before 3,500 hours or 2,000 cycles TSR, whichever occurs first.

(6) Remove from service prior to further flight, chambers with cumulative circumferential cracking greater than 8 inches in any one liner, or axial misalignment of adjacent cross-over tubes greater than 0.250 inch.

(7) Thereafter, chambers must be reinspected at intervals as specified in (c) below.

(c) Reinspect combustion chambers previously inspected per paragraph (a) or (b) above, or the repetitive inspection requirements of this paragraph, in accordance with the following intervals:

(1) If the combustion chamber was inspected by borescope or by removing the outer combustion case and visually inspecting, reinspect as follows:

(i) Any category chamber except category 3, with 3 inches or less cumulative circumferential cracking in any one liner, reinspect within the next 3,000 hours or 2,000 cycles TIS since last inspection, whichever occurs first.

(ii) Category 3 chambers with 3 inches or less cumulative circumferential cracking in any one liner, reinspect within the next 2,000 hours or 1,500 cycles TIS since last inspection, whichever occurs first.

(iii) Any category chamber with greater than 3 inches but less than or equal to 6 inches cumulative circumferential cracking in any one liner, reinspect within the next 1,500 hours or 1,000 cycles TIS since last inspection, whichever occurs first.

(iv) Any category chamber with greater than 6 inches but less than or equal to 8 inches cumulative circumferential cracking in any one liner, reinspect within the next 250 hours or 200 cycles TIS since last inspection, whichever occurs first.

(v) Any category chamber with greater than 8 inches cumulative circumferential cracking in any one liner, remove from service prior to further flight.

(vi) Any category chamber with axial misalignment of adjacent cross-over tubes from 0.150 inch to 0.250 inch, reinspect within the next 50 hours or 50 cycles TIS since last inspection, whichever occurs first.

(vii) Any category chamber with axial misalignment of adjacent cross-over tubes greater than 0.250 inch, remove from service prior to further flight.

(2) If the combustion chamber was inspected using the radioisotope procedure, reinspect as follows:

(i) Any category chamber with indicated 3 inches or less cumulative circumferential cracking in any 1 liner, reinspect within the next 2,000 hours or 1,500 cycles TIS since last inspection, whichever occurs first.

(ii) Any category chamber with indicated greater than 3 inches but less than or equal to 6 inches cumulative circumferential cracking in any one liner, reinspect within the next 1,500 hours or 1,000 cycles TIS since last inspection, whichever occurs first.

(iii) Any category chamber with indicated greater than 6 inches but less than or equal to 8 inches cumulative circumferential cracking in any one liner, reinspect within the next 250 hours or 200 cycles TIS since last inspection, whichever occurs first.

(iv) Any category chamber with indicated greater than 8 inches cumulative circumferential cracking in any one liner, remove from service prior to further flight.

(v) Any category chamber with axial misalignment of adjacent cross-over tubes from 0.150 inch to 0.250 inch, reinspect within the next 50 hours or 50 cycles TIS since last inspection, whichever occurs first.

(vi) Any category chamber with axial misalignment of adjacent cross-over tubes greater than 0.250 inch, remove from service prior to further flight.

(d) Except as provided for in Paragraph (e) below, combustion chambers removed from service may not have liners weld repaired if any of the following crack indications are present in that liner:

(1) Individual circumferential cracks greater than 3 inches.

(2) Cumulative circumferential cracks greater than 4 inches.

(3) Cumulative circumferential cracks greater than 3 inches but less than or equal to 4 inches and with less than 3 inches circumferential separation between individual cracks.

(4) Liners with circumferential cracks in excess of paragraphs (1) through (3) above must be replaced with new liners or patch repaired.

(5) Previously weld repaired individual circumferential cracks in excess of 3 inches, or previously weld repaired cracks of 3 inches or less in length, which have operated less than 1,000 cycles, or previously weld repaired cracks of which any portion has recracked, must be included in the crack length indications for determining repairability.

(6) Previously weld repaired individual circumferential cracks of 3 inches or less which have operated at least 1,000 cycles without any portion of the repair recracking, do not have to be included in the crack length indications for determining repairability.

(7) Previous 2-3 seam area weld repairs that are engulfed by the fusion weld overlayed bead, and are not visible, are not to be included in the crack length indications of Paragraphs (5) and (6) above for determining repairability.

(e) Combustion chambers removed from service with the 2-3 seam not fusion weld overlayed (or with a partial overlay), may have the 2-3 seam area weld repaired beyond the limitations of Paragraph (d) above as follows:

(1) Individual circumferential cracks up to 5 inches.

(2) Cumulative circumferential cracks up to 7 inches with 1 inch or greater separation between adjacent cracks.

(3) Previous 2-3 seam circumferential weld repairs that have not recracked, regardless of time in service, should not be included in the crack length indications for determining repairability under this paragraph.

(4) Repair must be accomplished per PW JT8D Engine Manual (EM) 481672, dated June 1, 1986, Section 72-41-14, Repair 06 (Temporary Revision Number 72-2741, dated March 31, 1986), or FAA approved equivalent.

(5) A complete 360 degree fusion weld overlay must be accomplished following the weld repair per PW EM 481672, dated June 1, 1986, Section 72-41-14, Repair 33 (Temporary Revision Number 72-2824 dated March 31, 1986), or FAA approved equivalent.

NOTES (1) Classification of the categories of cumbustion chambers must be supported by repair documentation. Previously weld repaired circumferential cracks are to be considered as cracks for determining combustion chamber category. For the purposes of this AD, notwithstanding the definitions in PW SB 5639, Revision 1, dated March 21, 1986, the combustion chamber categories are defined as follows:

Category 1A - First run chambers or non first run chambers which have had at least the Numbers 2 through 6 liners replaced as described in PW SB 5639 with new materials and do not have any weld repairs on those liner segments. The remaining liners, if repaired, must be repaired in accordance with the requirements of Category 2A and 2B. Category 1A chambers have at least the Numbers 2 through 5 liners coated internally with magnesium zirconate heat resistant coating.

Category 1B - Same as Category 1A except without the magnesium zirconate heat resistant coating.

Category 2A - Non first run chambers incorporating either SB 5192, or SB 5199, or an existing 2 to 3 liner seam with a fusion weld overlay, or a new 2 to 3 liner seam weld without a fusion weld overlay; and with either a patch repair, or repair by liner replacement less than that of Category 1A and 1B, or individual circumferential weld repaired cracks of 3 inches or less or cumulative circumferential weld repaired cracks totaling 4 inches or less in any one liner that are separated by at lest 3 inches of uncracked material. Category 2A chambers have at least the Numbers 2 through 5 liners coated internally with magnesium zirconate heat resistant coating.

Category 2B - Same as Category 2A except without the magnesium zirconate heat resistant coating.

Category 3 - All chambers with liner repairs that are not documented as Categories 1A, 1B, 2A, or 2B and chambers specifically including individual circumferential weld repaired cracks greater than 3 inches or cumulative circumferential weld repaired cracks totaling more than 4 inches in any one liner.

(2) For the purpose of this AD, an ECM program is defined as PW ECM-I or ECM-II, as described in Appendix A of SB 5639, Revision 1, dated March 21, 1986, or FAA approved equivalent. Should stable cruise data be unavailable for a period exceeding 48 hours (2 calendar days), 12 flight cycles, or 14 flight hours, whichever occurs later; and should the combustion chambers be beyond the non-ECM inspection category hour or cycles limit, the chambers must be inspected within the next 10 cycles in service. In the event that stable cruise data again become available prior to the expiration of the above 10 cycle limit, return to the ECM inspection category is permitted if the following conditions are met:

(i) The period during which stable cruise data is unavailable does not include any one period of data loss that exceeds 72 hours (3 calendar days), and;

(ii) One stable cruise point is recorded for each day that stable cruise data were unavailable, and that the rate of data acquisition not exceed one data point per cycle, and;

(iii) No maintenance was accomplished on the fuel flow, exhaust gas temperature (EGT), or N1/N2 rotor speed engine instrumentation, and;

(iv) The stable cruise data recorded per paragraph (ii) above be processed by the ECM program and evaluated by a qualified analyst to confirm that no significant parameter shifts have occurred.

(3) The radiographic inspection technique referenced in telegraphic airworthiness directive (TAD) T85-17-51 R1 as an approved alternate means of compliance, is not considered an equivalent means of compliance with this AD.

(4) Combustion chambers which are removed from service prematurely, inspected in accordance with this AD, and that do not require repair, may be returned to service to continue their run to the appropriate initial inspection threshold or the applicable repetitive inspection interval, whichever is greater.

(5) Magnesium zirconate heat resistant coating is to be applied in accordance with the JT8D Restructured Engine Manual P/N 481762, Chapter 72-41-14, Repair Number 28, or FAA approved equivalent. To meet the requirement for magnesium zirconate in a given combustion chamber category, the coating must have been completely renewed on at least the 2 through 5 liners at that repair rather than locally patched.

(6) PW All Operators Wire Number JT8D/72-41/PSE: JKS: 5-8-23-1, dated August 23, 1985, and Flight Operations Engineering Report Number RFT5-8-30-1, dated August 30, 1985, contain further information relevant to combustion chamber distress and the symptoms which manifest themselves as a result of excessive combustion chamber cracking and misalignment.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

PW SB 5639, Revision 1, dated March 21, 1986, Pratt & Whitney JT8D EM 481672, dated June 1, 1986, Section 72-41-14, Repair 06 (Temporary Revision Number 72-2741, dated March 31, 1986) and Repair 33 (Temporary Revision Number 72-2824, dated March 31, 1986), identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552 (a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Pratt & Whitney, Publication Department, P.O. Box 611, Middletown, Connecticut 06457. This document also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Room 311, Rules Docket Number 85-ANE-34, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

Amendment 39-5277 superseded telegraphic AD T85-17-51 R1 which was issued September 25, 1985.

Amendment 39-5277 (51 FR 12684), AD 86-09-02, became effective May 19, 1986.

This Amendment, 39-5372, becomes effective on August 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Jim Jones, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7121.

85-26-51 R1 SAAB FAIRCHILD: Amendment 39-5376. Applies to all Model SF-340A series airplanes, certificated in any category. Compliance as shown below. To minimize the hazards associated with engine flameout due to potential ice ingestion, accomplish the following, unless previously accomplished:

A. Prior to further flight, install a continuous ignition switch by incorporating the provisions of SAAB Fairchild SF-340 Service Bulletin SF340-74-002, Revision 1, dated December 15, 1985.

B. Incorporate the following into the limitations section of the airplane flight manual. This may be accomplished by including a copy of this AD in the airplane flight manual.

1. Takeoff in conditions of slush on the runway is prohibited unless Modification 1185, "Nacelle - Exhaust Nozzle - Improved Drainage and Ventilation of Inlet Protection Device (IPD) and Special Inspection," as described in SAAB Fairchild Service Bulletin SF340-54-002, Revision 1, dated April 3, 1985, has been accomplished.

2. Turn the engine and propeller anti-ice systems on and set the ignition ("IGN") switch to the continuous ("CONT") position during all operation in which icing could reasonably be expected to occur and for a period of five minutes after these conditions no longer exist.

3. In the definition of icing conditions stated in the FAA approved flight manual on page 2-11, change the temperature stated in "Icing Conditions," paragraph 1, line 4, from "5 degrees C" to "10 degrees C," unless Modification 1319, "Installation of New Lower Inlet, IPD and Exhaust Nozzle," as described in SAAB Fairchild Service Bulletin SF340-71-017 dated November 22, 1985, has been accomplished. If this modification has been accomplished, "5 degrees C" can remain in the definition.

C. Conduct engine performance monitoring in accordance with General Electric Operating Engineering Bulletin (OEB) 2, Revision 4, dated December 14, 1985, or later FAA-approved revision.

D. Prior to further flight, and at intervals specified in General Electric OEB 4, Revision 4, dated December 14, 1985, or later FAA-approved revisions, perform an inspection and perform maintenance, as necessary, of the ignition system in accordance with that OEB.

E. Unless Modification 1319, as described in paragraph B.3., above, has been accomplished, in the event of an icing encounter, an inspection must be accomplished prior to the next

departure to assure that no snow, ice, or slush accumulation is present in or around the inlet or the inlet protection device.

F. Following each flameout or re-ignition event, conduct an inspection of Stage 1 compressor blades, in accordance with General Electric OEB 4, Revision 4, dated December 14, 1985, or later FAA-approved revisions.

G. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

H. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer, may obtain copies upon request to SAAB Scania, Product Support, S-58188, Linkoping, Sweden. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This supersedes telegraphic AD T85-25-57 issued December 20, 1985.

This amendment becomes effective August 18, 1986, as to all persons, except those persons to whom it was made immediately effective by telegraphic AD T85-26-51, issued December 31, 1985.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

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BOEING
Airworthiness Directive
VOLUME II

86-17-04 BOEING: Amendment 39-5369. Applies to all Model 757-200 series airplanes listed in Boeing Service Letter 757-SL-27-24-B, dated June 2, 1986, certificated in any category.

To detect nuts that have insufficient self-locking torque characteristics, installed on the nose gear door actuator attachment, main landing gear jury brace support attachment, main landing gear forward trunnion drag fitting aft attachment, and the P&W 2037 engine front evener bar attachment, accomplish the following, unless already accomplished:

A. Within the next 90 days after the effective date of this AD, check the Category II self-locking nuts, P/N BACN10JC12CM or BACN10JC12CD, except the rudder pedal adjustment cable retainer self-locking nut, for proper self-locking torque in accordance with Paragraph II of Boeing Service Letter 757-SL-27-24-B, dated June 2, 1986, or later FAA-approved revision. If any self-locking nut is found not to meet the self-locking torque criteria of Boeing Service Letter 757-SL-27-24-B, dated June 2, 1986, or later FAA-approved revision, it must be replaced prior to further flight with a nut which meets the self-locking torque criteria.

B. An alternate means of compliance or adjustment of the compliance time, which provide an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 5, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Stanton R. Wood, Airframe Branch, ANM-120S; telephone (206) 431-2924. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING
Airworthiness Directive
VOLUME II

86-17-05 Boeing: Amendment 39-5391. Applies to Boeing Model 727-200 series airplanes equipped with the Number 3 cargo door, certificated in any category, listed in Boeing Alert Service Bulletin 727-53A0169, Revision 2, dated May 23, 1986.

To detect cracks in the forward frame of the Number 3 cargo door cutout, accomplish the following:

A. Within the next 300 landings after the effective date of this AD or prior to accumulating 29,000 landings, whichever occurs later, unless accomplished within the last 1900 landings, visually inspect the forward frame of the Number 3 cargo door cutout for cracks in accordance with paragraph C. of the Accomplishment Instructions in Boeing Alert Service Bulletin Number 727-53A0169, Revision 2, dated May 23, 1986, or later FAA-approved revisions. If any cracks are detected, repair in accordance with paragraph C. of this AD. Repeat the inspections at intervals not to exceed 2,200 landings.

B. Within the next 300 landings after the effective date of this AD or prior to accumulating 35,000 landings, whichever occurs later, unless accomplished within the last 1900 landings, visually inspect the forward frame of the Number 3 cargo door cutout for cracks in accordance with paragraphs D., and E. of the Accomplishment Instructions in Boeing Alert Service Bulletin Number 727-53A0169, Revision 2, dated May 23, 1986, or later FAA-approved revisions. If any cracks are detected, repair in accordance with paragraph C. of this AD. Repeat the inspections at intervals not to exceed 2,200 landings.

C. Repair any cracks detected in the forward frame of the Number 3 cargo door cutout in accordance with paragraph G. of the Accomplishment Instructions in Boeing Alert Service Bulletin 727-53A0169, Revision 2, dated May 23, 1986, or later FAA-approved revisions. Reinspect, at intervals not to exceed 2,200 landings, all areas of the forward frame not covered by the repair, in accordance with the Accomplishment Instructions of paragraphs C., D., and E. of Boeing Alert Service Bulletin 727-53A0169, Revision 2, dated May 23, 1986, or later FAA-approved revisions.

D. Modification of uncracked frames in accordance with Figure 2 of Boeing Alert Service Bulletin 727-53A0169, Revision 2, dated May 23, 1986, or later FAA-approved revisions constitutes terminating action for repetitive inspections required by this AD.

E. Alternate means of compliance or adjustment of compliance time, which provide an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. The documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment supersedes AD 84-21-04, Amendment 39-4938.

This amendment becomes effective September 5, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Stanton R. Wood, Airframe Branch, ANM-120S; telephone (206) 431-2924. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-17-06 ALLISON GAS TURBINE DIVISION, GENERAL MOTORS CORP. (Allison, formerly Detroit Diesel Allison): Amendment 39-5370. Applies to Allison 501-D13, -D13A, -D13D, and -D13H engine reduction gear assemblies equipped with thrust sensitive switch assembly, P/N's 6792891, 6794122, 6794359, 6807776, 23005483, or 23005485.

Compliance is required within 60 days after the effective date of this AD, unless already accomplished.

To prevent the possibility of unwanted autofeather or the inability to autofeather when required, accomplish the following:

Replace thrust sensitive switch assemblies, P/N's 6792891, 6794122, 6794359, 6807776, 23005483, and 23005485 with P/N 6870559, a single carbon contact switch assembly, in accordance with the detailed instructions provided in Allison Commercial Engine Alert Bulletin CEB-A-73-84, Revision 2, dated October 1, 1984, or FAA approved equivalent.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Chicago Aircraft Certification Office, may adjust the compliance time specified in this AD.

Allison Commercial Engine Alert Bulletin CEB-A-73-84, Revision 2, dated October 1, 1984, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Allison Gas Turbine Division, General Motors Corp., P.O. Box 420, Indianapolis, Indiana 46206-0420. This document also may be examined at the Office of the Regional Counsel, FAA, ATTN: Rules Docket No. 82-ANE-50, 12 New England Executive Park, Burlington, Massachusetts 01803 and may be examined weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective on September 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Ty Krolicki, Chicago Aircraft Certification Office, Propulsion Branch, ACE-140C, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone (312) 694-7032.

DEHAVILLAND
Airworthiness Directive
VOLUME II

T86-16-51 DEHAVILLAND: Telegram issued August 15, 1986. Applies to DeHavilland Model DHC-8 airplanes, certificated in any category, serial numbers 003, 005, and subsequent. Compliance is required before further flight, unless previously accomplished.

To preclude the uncommanded retraction of the main landing gear, accomplish the following:

A. Insert a copy of this AD in the Airplane Flight Manual and advise all flight crew members. For takeoff, landing, and while on the ground, isolate the main landing gear actuation hydraulics by complying with the following revised flight manual procedures:

Operating Limitations:

(A) Nosewheel steering switch must be selected off.

(B) Takeoff or landing in cross winds exceeding 20 knots is not permitted.

NOTE: Information presented in Supplement 12 of the Airplane Flight Manual (Operation with inoperative nose wheel steering) is in error and will be amended in the next AFM revision.

2. Normal Operating Procedures:

- Flight Compartment Check - Power On

ADD: Landing Gear Selector Lever - Down. Check 3 green lights on. All door and gear unlocked lights out. Selector lever light out.

- Landing Gear Inhibit Switch - Inhibit.
- Landing Gear Alternate Release Door - Open Fully.
- Landing Gear Alternate Extension Door - Open Fully.
- Hydraulic Pump Handle - Insert in hand pump socket and operate until hand pump movement becomes stiff.
- Hydraulic Pump Handle - Stow.

Pre-Taxi Checks:

11. (Change) Nosewheel Steering Switch - Off. Steer the airplane on the ground by means of differential braking and power lever adjustment.

After Takeoff:

1. (Change) Upon Achieving Positive Rate of Climb:

- Landing Gear Alternate Release and Landing Gear Alternate Extension Doors - Close Fully.
- Landing Gear Inhibit Switch - Norm.
- Landing Gear Selector Lever - Up. Check all gear and door lights and gear selector lever light out.

NOTE: Should landing gear selector lever be selected up prior to closing landing gear alternate release and landing gear alternate extension doors and selecting landing gear inhibit switch to normal, reselect landing gear selector lever down and accomplish gear retraction as per revised procedure. Landing

gear alternate release and landing gear alternate extension doors and landing gear inhibit switch are not within reach of captain when secured in left hand seat in normal flying position.

Approach:

1. (Change) Landing Gear Selector Lever - Down. Check 3 green lights on. All door and gear unlocked lights out. Selector lever light out.

- Landing Gear Inhibit Switch - Inhibit
- Landing Gear Alternate Release Door - Open Fully.
- Landing Gear Alternate Extension Door - Open Fully.
- Hydraulic Pump Handle - Insert in hand pump socket and operate until hand pump movement becomes stiff.
- Hydraulic Pump Handle - Stow.

Add: Nosewheel Steering Switch - Off.

Go-Around From Final Approach:

5. (Change) Upon achieving positive rate of climb landing gear alternate release and landing gear alternate extension doors - Close Fully.

- Landing Gear Inhibit Switch - Normal.
- Landing Gear Selector Lever - Up. Check all gear and door lights and gear selector lever light out.

3. Emergency Operating Procedures:

Engine Failure or Fire After V1:

2. (Change) Gear retraction procedures as above for go-around from final approach.

One Engine Inoperative Approach and Landing:

1. (Change) Landing Gear:

If No. 1 Engine Inoperative:

- Gear extension procedure as above for approach.

If No. 2 Engine Inoperative:

- Airspeed - 140 kt IAS maximum.
- Landing Gear Inhibit Switch - Inhibit.
- Landing Gear Selector Lever - Down.
- Landing Gear Alternate Release Door - Open Fully.
- Main Landing Gear Release Handle - Pull Fully Down.
- Landing Gear Alternate Extension Door - Open Fully. Insert pump handle in handpump socket and operate until main landing gear locks down (left and right green lights on, and left door and right door amber lights on) and handpump movement becomes stiff.
- Nose Gear Alternate Release Handle - Pull Fully Up. Check nose green light and nose door amber light on. If any of the gear locked down (green) lights fail to illuminate:
- Gear Locked Down Indicator Light Switch - On. Check for illumination of appropriate gear down lock alternate light.
- Anti-skid Switch - Test.
- PTU Manual Switch - PTU Manual.

One Engine Inoperative Approach Climb (Overshoot):

3. (Change) Gear Retraction Procedure as Above for Go-Around From Final Approach.

4. Performance Data:

(A) Takeoff Distance Required - Increase by Two Percent.

(B) Takeoff Run Required - Increase by Two Percent.

(C) Accelerate-Stop Distance Required - Increase by Two Percent.

B. No later than November 1, 1986, incorporate DHC Modification 8/0567 in accordance with DHC Service Bulletin 8-32-35, dated July 31, 1986. Remove the copy of this directive from the AFM.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

W. White, Systems Branch, FAA, New York Aircraft Certification Office; Telephone Number (516) 791-6427.

86-12-02 GARRETT TURBINE ENGINE COMPANY: Amendment 39-5371. Applies to GTEC Model TPE331-25AA, -25AB, -25DA, -25DB, -25FA, -43A, -43BL, -47A, -55B, -1, -2, -2UA, -3U, -3UW, -5, -6, -6A, -8, -10, -10G, -10R, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, -11U, -11UA, -12, and TSE331-3U turboprop and turboshaft engines.

Compliance required as indicated unless already accomplished:

To prevent the failure of the beryllium-copper nut on the turbine end of the tiebolt shouldered shaft and resultant major damage to the engine, accomplish the following:

(a) Engines with less than 100 engine operating hours since new or since installation of a turbine oil scavenge pump assembly for any reason are to have an initial oil sample taken and processed in accordance with the instructions provided in Paragraph 2 of Garrett Service Bulletin (SB) No. TPE331-72-0530, dated May 9, 1986, (SB 0530), or FAA approved equivalent. This is to be accomplished at not less than 20 hours or more than 25 hours since new or after the installation of that pump assembly, or within 5 engine operating hours after the effective date of this AD, whichever occurs later unless Paragraph (e) below has been accomplished. Additional oil samples are to be taken and processed at not more than 25 operating hour intervals thereafter until a total of 100 operating hours has been accumulated since new or since installation of that pump assembly or until Paragraph (e) below has been accomplished.

(b) Engines with 100 or more, but less than 500 engine operating hours since new or since installation of a turbine oil scavenge pump assembly for any reason on the effective date of this AD, are to have an oil sample taken and processed in accordance with the instructions provided in paragraph 2 of SB 0530 or FAA approved equivalent within the next 50 engine operating hours after the effective date of this AD. This inspection is not required if Paragraph (e) below has been accomplished.

NOTE: (1) Garrett recommends that oil samples continue to be taken at regular intervals after accomplishment of this AD in accordance with the Spectrometric Oil Analysis Program (SOAP) described in Garrett Service Information Letter No. P331-97. While the FAA encourages this program, it is not mandatory per this AD.

(2) Engines which have not had the turbine oil scavenge pump assembly removed for any reason during the 500

hours of operation prior to the effective date of this AD are not required to have the oil sampled for beryllium per this AD.

(c) If oil sample analysis indicates beryllium content of oil is in excess of 0.2 (two-tenths) parts per million, accomplish paragraph (e) before further flight.

(d) If oil sample analysis indicates beryllium content of oil is in excess of 0.1 (one-tenth) parts per million, but equal to or less than 0.2 (two-tenths) parts per million, accomplish Paragraph (e) within the next 5 engine operating hours.

(e) Engines which exceed the limits for beryllium content in the engine oil are to have the torsion shaft inspected, the turbine oil scavenge pump reworked or replaced, the beryllium-copper nut replaced, the turbine oil scavenge pump drive spur gear shaft assembly inspected, and the engine oil and filter changed in accordance with Paragraph 2 of SB 0530 or equivalent approved by the Manager, Western Aircraft Certification Office. The inspection of the torsion shaft does not apply to the following engine models which have "strain-gage" torque sensors:

TPE331-10G	TPE331-10UG	TPE331-10UGR
TPE331-11U	TPE331-11UA	TPE331-12

(f) This AD does not apply to engines which have been inspected and modified in accordance with Paragraph 2 of Garrett SB Nos. TPE331-72-0533, dated May 9, 1986, and TPE331-72-0534, dated May 9, 1986, or equivalent approved by the Manager, Western Aircraft Certification Office.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and FAR 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007.

Upon submission of substantiating data by an owner or operator, through an FAA Maintenance Inspector, the Manager, Western Aircraft Certification Office may adjust the compliance time specified in this AD.

Garrett Turbine Engine Company SB No. TPE331-72-0530 dated May 9, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Garrett Turbine Engine Company, P.O. Box 5217, Phoenix, Arizona 85010. This document may also be examined at the Office of the Regional Counsel, Federal Aviation Administration, Rules Docket Number 86-ANE-25, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m., or at the Western Aircraft Certification Office, 15000 Aviation Boulevard, Hawthorne, California.

This amendment becomes effective September 5, 1986, as to all persons except those persons to whom it was made

immediately effective by priority letter AD 86-12-02, issued June 5, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Mr. Bill Moring, Propulsion Section, ANM-174W, Federal Aviation Administration (FAA), Northwest Mountain Region, Western Aircraft Certification Office, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009-2007; telephone (213) 297-1382.

V.2/bk.2/86-18

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MIKE MONRONEY AERONAUTICAL CENTER
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BOEING
Airworthiness Directive
VOLUME II

86-18-01 BOEING: Amendment 39-5390. Applies to Model 747 series airplanes listed in Boeing Alert Service Bulletins 747-53A2259, Revision 1, dated April 18, 1986, and 747-53A2237, Revision 1, dated March 28, 1986, certificated in any category.

To detect cracking of body frame structure in the lower lobe (Sections 42 and 46) of the fuselage, accomplish the following, unless already accomplished:

A. For airplanes listed in Boeing Alert Service Bulletin 747-53A2237, Revision 1, dated March 28, 1986:

1. Perform a detailed visual inspection for frame cracking from fuselage station 540 to 760, and 1820 to 1900, stringers 35 left to 42 left, in accordance with Section III of Boeing Service Bulletin 747-53A2237, Revision 1, dated March 28, 1986, or later FAA-approved revisions, in accordance with the following schedule after the effective date of this AD:

a. Within 300 landings for airplanes that have accumulated more than 12,000 landings on the effective date of this AD.

b. Within 800 landings for airplanes that have accumulated 10,000 to 12,000 landings on the effective date of this AD.

c. Within 800 landings or prior to the accumulation of 10,000 landings, whichever occurs later, for airplanes that have accumulated less than 10,000 landings on the effective date of this AD.

2. If cracking is found, repair in accordance with FAA-approved procedures prior to further flight.

3. Repeat the inspections required by paragraph A.1., above, at intervals not to exceed 3,000 landings until terminating action is performed.

4. Modification of the frames in accordance with Boeing Service Bulletin 747-53A2237, Revision 1, dated March 28, 1986, or later FAA-approved revisions constitutes terminating action for the repetitive inspection requirement of this paragraph.

B. For airplanes listed in Boeing Alert Service Bulletin 747-53A2259, Revision 1, dated April 18, 1986:

1. Perform a visual inspection of cargo side guide support brackets from fuselage station 1500 to 1800, right and left hand side, for a proper machined taper in accordance with Section III of Boeing Service Bulletin 747-53A2259, Revision 1, dated April 18, 1986, or later FAA-approved revisions, in accordance with the following schedule after the effective date of this AD:

a. Within 300 landings for airplanes that have accumulated more than 12,000 landings on the effective date of this AD.

b. Within 800 landings for airplanes that have accumulated 10,000 to 12,000 landings on the effective date of this AD.

c. Within 800 landings or prior to the accumulation of 10,000 landings, whichever occurs later, for airplanes that have accumulated less than 10,000 landings on the effective date of AD.

2. If any cargo side guide support bracket is improperly tapered, perform a detailed visual inspection of the frame area adjacent to the untapered bracket for cracking in accordance with Boeing Service Bulletin 747-53A2259, Revision 1, dated April 18, 1986, or later FAA-approved revisions.

3. Repeat the inspections required by paragraph B.2., above, at intervals not to exceed 3,000 landings until terminating action is performed.

4. If cracking is found, repair in accordance with FAA-approved procedures prior to further flight.

5. Installation of a tapered strap adjacent to the affected brackets in accordance with Boeing Service Bulletin 747-53A2259, Revision 1, dated April 18, 1986, or later FAA-approved revisions constitutes terminating action for the repetitive inspection requirements of this paragraph.

C. For Boeing Model 747SR airplanes only, based on continued mixed operation of cabin pressure differentials, the initial inspection thresholds and reinspection intervals specified in this AD may be multiplied by a 1.2 adjustment factor.

D. For the purposes of complying with this AD, the number of landings may be determined to equal the number of pressurization cycles where the cabin pressure differential was greater than 2.0 psi.

E. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes unpressurized to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 17, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-18-02 BEECH: Amendment 39-5395. Applies to Models 65-90 and 65-A90 (S/N LJ-68 thru LJ-317); 65-A90-1, 65-A90-2, 65-A90-3, 65-A90-4, B90, C90 (all S/N); C90A (S/N LJ-1063 thru LJ-1087, except LJ-1085); E90, 100, A100 and B100 (all S/N) airplanes, certified in any category, including those airplanes equipped with spar reinforcing straps, incorporated by Supplemental or original Type Certificates.

Compliance: Required as indicated after the effective date of this AD, unless already accomplished.

To detect possible fatigue cracking of the wing main spar lower cap and associated structure, accomplish the following:

(a) On all airplanes with more than 5,000 hours time-in-service (TIS), within the next 200 hours TIS, or within one calendar year, whichever occurs first, inspect the wing attach fittings, center section and outboard wing spar caps by visual, fluorescent penetrant and eddy current methods as specified in the applicable section of Beech Structural Inspection and Repair Manual, Part No. 98-39006, revised December 20, 1984, or later revision (BSIR Manual).

The inspection must be performed by personnel specifically trained by Beech Aircraft Corporation.

NOTE 1: A listing of approved maintenance facilities may be obtained from the sources listed in paragraph (f) of this AD.

(b) If any crack is found in a main spar lower cap or fitting, prior to further flight replace the defective part using the procedures specified in the BSIR Manual or with other instructions provided by Beech Aircraft Corporation.

(c) If a crack is found, a report must be submitted within one week to the FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209. (Reporting approved by the Office of Management and Budget under OMB NO. 2120-0056.)

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD can be accomplished.

(e) The compliance time for the inspections specified in this AD may be extended up to ten percent to coincide with the next wing bolt inspection per AD 85-22-05 if applicable.

(f) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Beech Aircraft Corporation, Wichita, Kansas 67201 or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

NOTE 2: The wing bolt inspection and outboard wing corrosion inspections specified in the BSIR Manual are recommended but not required by this AD.

This amendment becomes effective on September 26, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Don Campbell, Wichita Aircraft Certification Office (ACO), ACE-120W, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; Telephone (316) 946-4409.

BOEING
Airworthiness Directive
VOLUME II

86-18-03 BOEING: Amendment 39-5384. Applies to all Model 727 and 727-100 series airplanes listed in Boeing Service Bulletin 727-57-107, Revision 5, dated December 13, 1985, certificated in any category. To detect cracks in the wing center section front spar web between Left Buttock Line (LBL) 58.64 and Right Buttock Line (RBL) 58.64, accomplish the following, unless already accomplished:

A. Except as provided in paragraph F., prior to the accumulation of 15,000 landings, or within the next 500 landings after the effective date of this AD, whichever occurs later, unless accomplished within the last 500 landings prior to the effective date of this AD, visually inspect the wing center section for cracks in accordance with Figure 1 of Boeing Service Bulletin 727-57-107, Revision 5, dated December 13, 1985 or later FAA-approved revisions. If no cracks are detected, repeat the visual inspection at intervals not to exceed 1,000 landings.

B. If a single crack less than two inches in length is detected on either side of BBL 0.0, before further flight, the crack must be stop drilled at each end in accordance with the Boeing 727 Structural Repair Manual (SRM) and visually reinspected at intervals not to exceed 10 landings for crack growth beyond the stop holes. If crack growth occurs beyond any stop hole, accomplish the procedures required by paragraph C., or D. of this AD.

C. If a single crack between two and five inches in length is detected on either side of BBL 0.0, before further flight, the crack must be stop drilled at each end in accordance with the Boeing 727 SRM, and the crack must be repaired in accordance with Boeing Drawing Number 69-62491-2. Visually reinspect the affected area at intervals not to exceed 200 landings for crack growth beyond any stop hole. If crack growth occurs beyond any stop hole, accomplish the procedures required by paragraph D., below.

D. If any crack greater than five inches is detected, or if more than one crack on either side of BBL 0.0 is detected, they must be stop-drilled in accordance with the Boeing 727 SRM, and modified in accordance with paragraph E., of this AD.

E. To terminate the repetitive inspection requirements of paragraph A., B., C., and F. of this AD, accomplish one of the following:

1. Accomplish the modification described in Part I.D. of the Accomplishment Instructions of Boeing Service Bulletin 727-57-107, Revision 5, or later FAA-approved revision; or

2. Accomplish the interim modification described in Part I.E. of the Accomplishment Instructions of Boeing Service Bulletin 727-57-107, Revision 5, or later FAA-approved revision. Prior to the accumulation of 12,000 landings after the incorporation of the interim modification, eddy current inspect the fastener and any stop holes for crack growth, remove the fatigued metal, stop-drill any new cracks in accordance with the Boeing 727 SRM, and incorporate the terminating modification in accordance with Part I.E. of the Accomplishment Instructions of Boeing Service Bulletin 727-57-107, Revision 5, or later FAA-approved revision.

F. With respect to airplanes that have been modified by installing angles back-to-back with existing stiffeners:

1. Airplanes modified prior to the accumulation of 20,000 landings require no further action.

2. Airplanes modified after the accumulation of 20,000 landings must be inspected within 1,000 landings after the effective date of this AD in accordance with Figure 1 of Boeing Service Bulletin 727-57-107, Revision 5, or later FAA-approved revision. If cracks are found, before further flight, accomplish paragraph B., C. or D., as appropriate, of this AD. If no cracks are found, reinspect thereafter at intervals not to exceed 1,000 landings.

G. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

H. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South; Seattle, Washington.

This supersedes AD 70-15-15, Amendment 39-1048, as amended by Amendments 39-1188 and 39-3417.

This Amendment, 39-5384, becomes effective September 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Stanton R. Wood, Airframe Branch, ANM-120S, telephone (206) 431-2924. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING
Airworthiness Directive
VOLUME II

86-18-04 BOEING: Amendment 39-5385. Applies to Model 737 series airplanes, line numbers 930 and above, listed in Boeing Service Letter 737-SL-27-38, dated January 16, 1986, certificated in any category. To detect nuts installed at the Body Buttock Line (BBL) 70.85 wing-to-body splice plate, the thrust reverser secondary deactivation pin, and the vertical fin front spar to closure rib attachments, that have insufficient self-locking torque characteristics, accomplish the following, unless already accomplished:

A. Within the next 18 months after the effective date of this AD, check the self-locking nuts, P/N BACN10JC12CM and P/N BACN10JC12CD, for proper self-locking torque in accordance with Paragraph II of Boeing Service Letter 737-SL-27-38, dated January 16, 1986, or later FAA-approved revision. If any self-locking nut does not meet the torque criteria specified in the service letter, replace it prior to further flight with an appropriate nut which meets the torque criteria.

B. An alternate means of the compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Carlton Holmes, Airframe Branch, ANM-120S; telephone (206) 431-2926. Mailing address: Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-18-06 BOEING: Amendment 39-5386. Applies to all Model 747 series airplanes listed in Boeing Alert Service Bulletin 747-57A2234, dated February 21, 1986, certificated in any category. To detect loose or broken bolts used for the forward attachment of the Numbers 1, 2, 3, 6, 7, and 8 trailing edge flap tracks to the wing lower surface, accomplish the following, unless already accomplished:

A. Prior to the accumulation of 5,000 flight cycles or within the next 300 flight cycles after the effective date of this AD, whichever occurs later, conduct a one-time inspection for loose or broken bolts in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-57A2234, dated February 21, 1986, or later FAA-approved revisions.

NOTE: "Proof Torque" inspections previously accomplished in accordance with Boeing Service Letters Numbers 747-SL-57-44, dated December 18, 1985, or 747-SL-57-44A, dated December 20, 1985, constitute an equivalent means of compliance with the above requirement.

B. If one bolt is found loose or broken, replace all eight bolts used for the forward attachment of the trailing edge flap track to the wing lower surface within the next 600 flight cycles in accordance with Boeing Alert Service Bulletin 747-57A2234, dated February 21, 1986, or later FAA-approved revision.

C. If two bolts are found loose or broken, replace all eight bolts used for the forward attachment of the trailing edge flap track to the wing lower surface within the next 300 flight cycles in accordance with Boeing Alert Service Bulletin 747-57A2234, dated February 21, 1986, or later FAA-approved revision.

D. If three or more bolts are found loose or broken, replace all eight bolts used for the forward attachment of the trailing edge flap track to the wing lower surface prior to further flight in accordance with Boeing Alert Service Bulletin 747-57A2234, dated February 21, 1986, or later FAA-approved revision.

E. Alternate means of compliance for paragraphs B., or C., above, is:

1. If broken bolts are found, their replacement may be deferred for 1,200 flight cycles, provided the remaining non-broken bolts are retorqued to installation requirements in accordance with Boeing Alert Service Bulletin 747-57A2234, dated February 21, 1986, or later FAA-approved revisions.

2. If loose bolts are found, retorque all bolts to installation requirements in accordance with the Boeing Alert

Service Bulletin 747-57A2234, dated February 21, 1986, or later FAA-approved revisions.

3. Perform a visual inspection of the H-11 bolts for broken bolts (evidenced by missing heads) within 15 months after the inspections of paragraph A., of this AD, and repeat the inspections thereafter at intervals not to exceed 15 months.

4. Replacement of the bolts with new bolts in accordance with Boeing Alert Service Bulletin 747-57A2234, dated February 21, 1986, or later FAA-approved revisions is terminating action for the repetitive inspections required by paragraph E.3.

F. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

G. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received this service information from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SAAB-FAIRCHILD
Airworthiness Directive
VOLUME II

86-18-07 SAAB-FAIRCHILD: Amendment 39-5387. Applies to Model SF-340A airplanes listed in SAAB-Fairchild Service Bulletin SF-340-76-007, Revision 3, dated August 14, 1985, certificated in any category. Compliance is required within 60 days after the effective date of this AD, unless previously accomplished. To prevent engine control cable freezing, accomplish the following:

A. Modify the engine control cable system in accordance with SAAB-Fairchild Service Bulletin SF340-76-007, Revision 3, dated August 14, 1985.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to SAAB-Fairchild, Product Support, S-58188, Linkoping, Sweden. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SHORT BROTHERS
Airworthiness Directive
VOLUME II

86-18-08 SHORT BROTHERS PLC: Amendment 39-5388. Applies to Models SD3-30 and SD3-60 airplanes listed in Short Brothers PLC Service Bulletins SD3-28-22, Revision 2, dated July 1985 (for Model SD3-30 airplanes), and SD360-28-06, Revision 2, dated July 1985 (for Model SD3-60 airplanes), certificated in any category. Compliance is required within 90 days after the effective date of this AD. To prevent erroneous or erratic fuel quantity indications caused by moisture ingress into the fuel tank gauging system co-axial connectors, accomplish the following, unless previously accomplished:

A. Seal the affected co-axial connectors in accordance with Short Brothers PLC, Service Bulletins SD3-28-22, Revision 2, dated July 1985, for Model SD3-30 airplanes, and SD360-28-06, Revision 2, dated July 1985, for Model SD3-60 airplanes.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Shorts Aircraft, 1725 Jefferson Davis Highway, Suite 510, Arlington, Virginia 22202. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 11, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-18-10 PIPER: Letter issued September 4, 1986. Applies to Model PA-42-1000 (Serial Numbers 42-5527002 through 42-5527033) airplanes certificated in any category.

Compliance: Required within the next 10 hours time-in-service after receipt of this AD, unless already accomplished.

To prevent loss of power and wing damage accomplish the following:

(a) Fabricate a checking device from 3/8 inch O.D. polyethylene plastic tubing, 48 inches in length with a wall thickness of approximately 0.060 inches.

NOTE 1: Polyethylene tubing is used in plumbing and air conditioning installations and may be found in hardware stores. Other types of plastic tubing may not work due to friction build up.

(b) Chamfer the end of the tube which will be inserted into the vent lines. Mark the tube at a point 40 inches from the chamfered end.

(c) Remove the vent well covers located on top of the left and the right wing tip tanks.

(d) Insert the checking device into each wing tip tank vent line up to the 40 inch mark.

(e) If the checking device can be inserted to the 40 inch mark, the vent line is clear. Reinstall the vent well covers. No further action is required.

(f) If the checking device cannot be inserted to the 40 inch mark, prior to further flight:

(1) Drain the fuel from the airplane on the affected side(s).

(2) Remove the forward outboard access cover from the bottom of the left and/or right wing(s) as required.

(3) Visually inspect the affected tip tank vent lines for blockage or deformation.

(4) Remove the fuel cap on the affected tip tank(s), depress the antisiphon flapper valve and using a light and mirror, visually inspect the upper portion of the wing tip tanks fuel vent line for blockage or deformation.

(5) Replace any lines found blocked or deformed.

(6) Reinstall the wing access plates with the sealant specified in the airplane maintenance instructions.

(7) Fuel the airplane and check for leaks.

NOTE 2: Piper Telex Service Bulletin No. 846, dated August 26, 1986, applies to the subject of this AD.

(g) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(h) Within five (5) days of accomplishing this AD, report, in writing, all defects found during accomplishment of this AD to the Manager, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337. (Reporting approved by the Offices of Management and Budget under OMB No. 2120-0056.)

(i) An alternate method of compliance which provides an equivalent level of safety, may be approved by the Manager, Atlanta Aircraft Certification Office.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Gil Carter, ACE-140A, FAA, Atlanta Aircraft Certification Office, 1075 Inner Loop Road, College Park, Georgia 30337; Telephone (404) 763-7435.

BRITISH AEROSPACE
Airworthiness Directive
Final Copy of Letter
VOLUME II

86-06-04 BRITISH AEROSPACE: Amendment 39-5409. Applies to British Aerospace Models DH 125-1A, DH 125-1A/522, DH 125-1A/S-522, and DH 125-3A airplanes, all serial numbers, certificated in any category. To prevent loss of control due to asymmetric flaps, accomplish the following, unless already accomplished:

A. Before further flight, inspect the left-hand and right-hand flap drive torque shaft assemblies, and repair or replace, as necessary, in accordance with British Aerospace (BAe) Alert Service Bulletin 27-A140, dated March 10, 1986, or BAe Service Bulletin 27-140, dated April 1, 1986.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 15, 1986.

It was effective earlier to those recipients of Priority Letter AD 86-06-04 dated March 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

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U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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86-19-01 BOEING: Amendment 39-5394. Applies to Model 747-100SR series airplanes listed in Section 3.0 of Boeing Document No. D6-35655 "Supplemental Structural Inspection Document" (SSID), approved March 22, 1986, certificated in any category. Compliance is required as indicated in the body of the AD.

To ensure the continuing structural integrity of these airplanes, accomplish the following, unless already accomplished:

A. Within one year after the effective date of the AD, incorporate a revision into the FAA-approved maintenance inspection program which provides no less than the required damage tolerance rating (DTR) for each Structural Significant Item (SSI) listed in Boeing Document D6-35655, approved March 22, 1986, or later FAA-approved revisions. The required DTR value for each SSI is listed in the document. The revision to the maintenance program must include and be implemented in accordance with the procedures in Sections 5.0 and 6.0 of the SSID.

B. Cracked structure must be repaired before further flight in accordance with an FAA-approved method.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

D. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

E. Operators who have acceptably incorporated Boeing Document No. D6-35655, approved March 22, 1986, or later FAA-approved revisions, into their approved maintenance program are exempt from the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 22, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Aerospace Engineer, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

READEX FICHE best copy available

AIRBUS INDUSTRIE
Airworthiness Directive
VOLUME II

86-19-02 AIRBUS INDUSTRIE: Amendment 39-5396. Applies to Model A300 B2 and B4 series airplanes, serial numbers as listed in each of the following service bulletins, certificated in any category. To prevent dangerous propogation of cracks in the fuselage, wing and vertical stabilizer structures, accomplish the following, within one year after the effective date of this AD or upon reaching the threshold (number of landings or flight hours) indicated in each paragraph below, whichever is the later, unless already accomplished:

A. For airplanes with serial numbers listed in Airbus Industrie (AI) Service Bulletin A300-53-127, Revision 4, dated May 10, 1984, prior to the accumulation of 18,000 landings or 18,000 flight hours, whichever occurs first, visually inspect the upper fuselage skin at frame 58, between stringer 5 left and stringer 5 right, in accordance with the accomplishment instructions of the service bulletin, and thereafter repeat this inspection at intervals not to exceed 3,000 flight hours. Repair cracks in accordance with Figure 2, Inspection and Repair Alternative Chart, of the service bulletin. Incorporation of AI Modification 2147, described in AI Service Bulletin A300-53-110, Revision 10, dated April 7, 1986, or AI Modification 2526/1693 described Service Bulletin A300-53-128, Revision 5, dated May 10, 1984, terminates the repetitive inspection requirements of this paragraph.

B. For airplanes with serial numbers listed in AI Service Bulletin A300-53-101, Revision 7, dated May 10, 1984, perform a radiographic and ultrasonic inspection for cracks in the circumferential fuselage splice plates and stringer couplings in accordance with the accomplishment instructions of the service bulletin with thresholds as follows:

1. If the requirements of AI Service Bulletin A300-53-053, Revision 2, dated July 30, 1981, have been accomplished, the initial inspection is not required until the accumulation of 20,000 landings after this work was completed, and thereafter repeat this inspection at intervals not to exceed 3,000 landings.

2. If the requirements of AI Service Bulletin A300-53-053, Revision 2, dated July 30, 1981, have not been accomplished, the initial inspection must be done prior to the total accumulation of 18,000 landings, and thereafter repeat this inspection at intervals not to exceed 3,000 landings.

Repair cracks in accordance with Figures 1 or 2 of the service bulletin. Incorporation of AI Modification 3760, described in AI Service Bulletin A300-53-170, Revision 1, dated January 25, 1985, constitutes terminating action for the requirements of this paragraph.

C. For airplanes with serial numbers listed in AI Service Bulletin A300-53-143, Revision 3, dated May 10, 1984, prior to the accumulation of 20,000 landings visually inspect for cracks in frame 57A between stringers 15 and 16, left and right, and the stringer 5 connection angle at frame 65, left and right, in accordance with the accomplishment instructions of the service bulletin, and thereafter repeat this inspection at intervals not to exceed 3,000 landings. Repair cracks in accordance with the service bulletin instructions. Incorporation of AI Modification 2643, described in AI Service Bulletin A300-53-132, Revision 4, dated May 10, 1984, constitutes terminating action for the requirements of this paragraph.

D. For airplanes with serial numbers listed in AI Service Bulletin A300-53-182, dated February 7, 1983, prior to the accumulation of 30,000 landings, inspect for cracks in the webplate between frame 30A and frame 32 at stringers 18 and 22, left and right, in accordance with the accomplishment instructions of the service bulletin. Repeat this inspection at intervals not to exceed 3,000 landings until the airplane has accumulated a total of 36,000 landings, and thereafter repeat the inspections at intervals not to exceed 2,000 landings. Repair cracks in accordance with the service bulletin instructions. Incorporation of AI Modification 1691, described in AI Service Bulletin A300-53-063, constitutes terminating action for the requirements of this paragraph.

E. For airplanes with serial numbers listed in AI Service Bulletin A300-53-112, Revision 2, dated July 20, 1981, prior to the accumulation of 24,000 landings, visually inspect the skin for cracks from frame 28 to frame 31, between stringers 29 and 31, left and right, in accordance with the accomplishment instructions of the service bulletin, and thereafter repeat this inspection at intervals not to exceed 6,000 landings, until the accumulation of 36,000 landings, and thereafter at intervals not to exceed 3,000 landings. If cracks are found at any inspection, AI Modification 1358, described in AI Service Bulletin A300-53-027, Revision 4, dated January 4, 1984, must be incorporated before further flight. Incorporation of AI Modification 1358 constitutes terminating action for the inspection requirements of this paragraph.

F. For airplanes with serial numbers listed in AI Service Bulletin A300-53-100, Revision 1, dated May 10, 1984, prior to the accumulation of 12,000 landings, or 15,000 flight hours, whichever occurs first, visually inspect internally and externally for cracks, the longitudinal joint at stringer 51, left and right between frames 72 and 80, in accordance with the accomplishment instructions of the service bulletin. Thereafter, repeat the internal inspections at intervals not to exceed 1,500 flight hours, and the external inspection at intervals not to exceed 12,000 flight hours. Repair cracks before further flight in accordance with the service bulletin instructions. Incorporation of AI Modification 1421, described in AI Service Bulletin A300-53-033, Revision 3, dated May 10, 1984, constitutes terminating action for the requirements of this paragraph.

G. For airplanes with serial numbers listed in AI Service Bulletin A300-53-125, dated July 15, 1983, prior to the accumulation of 20,000 landings, inspect for cracks as follows:

1. Using ultrasonic methods, inspect the longitudinal lap joints at stringer 29, left and right, between frames 72 and 73, in accordance with the accomplishment instructions of the service bulletin, and thereafter repeat this inspection at intervals not to exceed 2,000 landings; and

2. Using an eddy current method, inspect the longitudinal skin splices of the top fuselage joint, between frame 72 and frame 80, in accordance with the accomplishment instructions of the service bulletin, and thereafter repeat this inspection at intervals not to exceed 3,000 landings.

Repair cracks in accordance with the service bulletin instructions. Incorporation of AI Modification 2525, described in AI Service Bulletin A300-53-126, Revision 3, dated February 23, 1983, constitutes terminating action for the requirements of this paragraph.

H. For airplanes with serial numbers listed in AI Service Bulletin A300-55-026, Revision 3, dated May 10, 1984, prior to the accumulation of 20,000 landings or 20,000 flight hours, whichever occurs first, visually inspect the six (6) vertical stabilizer attachment fittings for cracks, which initiate from the rivet holes, in accordance with the accomplishment instructions of the service bulletin, and thereafter repeat this inspection at intervals not to exceed 1,500 landings. Repair cracks in accordance with the service bulletin instructions. Incorporation of AI Modification 3172, described in AI Service Bulletin A300-55-024, Revision 4, dated May 25, 1984, constitutes terminating action for the requirements of this paragraph.

I. For airplanes with serial numbers listed in AI Service Bulletin A300-57-109, Revision 1, dated July 10, 1982, prior to the accumulation of 15,000 landings, visually inspect for cracks in the landing angle attached to the outboard side of the wing leading edge at nose rib 8, left and right, in accordance with the accomplishment instructions of the service bulletin, and thereafter repeat this inspection at intervals not to exceed 3,000 landings. In case of crack discovery, incorporate AI Modification 1307, described in AI Service Bulletin A300-57-026, Revision 3, dated October 21, 1982, within the next 1,000 landings. Incorporation of AI Modification 1307 constitutes terminating action for the requirements of this paragraph.

J. Upon request of an operator, an FAA Maintenance Inspector, subject to prior approval of the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region, may adjust the inspection times specified in this AD to permit compliance at an established inspection period of that operator, if the request contains substantiating data to justify the change for that operator.

K. An alternate means of compliance, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

L. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer, may obtain copies upon request to Airbus Industrie, Airbus Support Division, Avenue Didier Daurat, 31700 Blagnac, France. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 26, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-1967. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

HTL ADVANCED TECHNOLOGY
Airworthiness Directive
VOLUME II

86-19-03 HTL ADVANCED TECHNOLOGY: Amendment 39-5397. Applies to HTL Advanced Technology fire extinguisher discharge outlets as listed in the service bulletins and installed on Boeing Model 707, 727, 737, 747, 757 and 767 series airplanes and on Airbus Industrie Model A300 and A310 series airplanes.

To preclude the potential for separation of the fire extinguisher discharge outlet and misdirection of the fire extinguishing agent, accomplish the following within twelve (12) months after the effective date of the AD, unless already accomplished:

A. Complete the physical and top view x-ray inspections of the fire extinguisher discharge outlets specified in HTL Advanced Technology Service Bulletins listed below, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region:

HTL SERVICE BULLETINS					MFRS. S/B
35203000-26-A-3	Rev. C	6-15-85	747	ENG/APU	747-26A2108
35203000-26-A-3	Rev. C	6-15-85	767	ENG/APU	767-26A0019
35203010-26-A-1	Rev. A	6-15-85	707	ENG	707-A3441
35203016-26-A-2	Rev. B	6-15-85	737	ENG	737-26A1029
35203018-26-A-2	Rev. B	6-15-85	727	ENG	727-26A0034
35203021-26-A-2	Rev. B	6-15-85	737	APU	737-26A1029
35203022-26-A-2	Rev. B	6-15-85	727	APU	727-26A0034
35203037-26-A-3	Rev. C	6-15-85	767	ENG/APU	767-26A0019
35203038-26-A-1	Rev. A	6-15-85	767	Cargo	767-26A0021
35203039-26-A-1	Rev. A	6-15-85	767	ENG/APU	767-26A0019
35203040-26-A-1	Rev. A	6-15-85	767	ENG/APU	767-26A0019
35289950-26-A-1	Rev. A	6-15-85	747	ENG/APU	747-26A2110
35289950-26-A-1	Rev. A	6-15-85	757	Cargo	757-26A0010
35289950-26-A-1	Rev. A	6-15-85	767	Cargo	767-26A0021
35290250-26-A-2	Rev. B	6-15-85	747	APU	747-26A2108

B. If a discharge outlet does not meet the criterion for acceptability specified in the above bulletins, replace with a serviceable unit before further flight.

C. For discharge outlets that meet the criterion for acceptance specified in the above service bulletins, accomplish the reidentification in accordance with the accomplishment instructions therein.

D. Remove and replace the fire extinguisher discharge outlets specified in the HTL Advanced Technology Service Bulletins listed below, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

HTL SERVICE BULLETINS				MFRS. S/B
33600005-1-26-1	Rev.	10-15-84	A300/APU	A300-26-048
33600005-1-26-1	-	10-15-84	A310/APU	A310-26-2004
33600005-2-26-2	-	10-15-84	A310/APU	A310-26-2004
35203030-26-A-1	-	8-31-84	A310 ENG	A310-26-2003

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

F. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to HTL Advanced Technology, 1800 Highland Avenue, Duarte, California 91010, Attention: John Hansen, Director of Quality Assurance. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective September 26, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Roy A. McKinnon, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6327.

86-19-04 DEHAVILLAND: Amendment 39-5398. Applies to all Model DHC-7 series airplanes, certificated in any category. Compliance is required as indicated, unless already accomplished. To ensure detection of heat-damaged wing upper surface structure behind the engine, and protection against wet starts of the engine resulting in external combustion of fuel, accomplish the following:

A. Within three months after the effective date of this AD, perform an external conductivity survey and, as necessary, an internal conductivity survey, and make repairs as necessary, of the upper wing skin behind each engine nacelle, in accordance with the Accomplishment Instructions of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985. Details of any damage discovered and data obtained from conductivity surveys must be transmitted immediately to DeHavilland Aircraft Company of Canada for processing.

B. For airplanes on which the mid fuel tank access cover located aft of an outboard nacelle has been replaced, within three months after the effective date of this AD, perform an internal conductivity survey of the wing structure in this area and make repairs, as necessary, in accordance with the Accomplishment Instructions of DeHavilland Service Bulletin No. 7-57-25, Revision B, dated November 22, 1985. Following an internal conductivity survey, the removed fuel tank access covers must be inspected before replacement to ensure serviceability, and repaired, if necessary. Details of any damage discovered and data obtained from conductivity surveys must be transmitted immediately to DeHavilland Aircraft Company of Canada for processing.

C. Within 1 year after the effective date of this AD, accomplish DeHavilland Modification No. 7/2414 - "Wing-Upper Skin Structure - Special Inspection and Installation of Heat Shields," described in DeHavilland Service Bulletin No. 7-57-25. The external conductivity survey and, as necessary, the internal conductivity survey detailed in paragraph A., above, must be accomplished immediately prior to installation of Modification 7/2414. For airplanes, serial numbers 1 through 27, Modification Nos. 7/2377 and 7/2378 - "Fuel Tank Access Panel Replacement," described in DeHavilland Service Bulletin No. 7-57-17, must be accomplished prior to the incorporation of Modification No. 7/2414.

D. An alternate means of compliance, which provides an acceptable level of safety, may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to DeHavilland Aircraft Company of Canada, Downsview, Ontario M3K 1Y5, Canada. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York.

This Amendment becomes effective September 26, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Vito Pulera, Aerospace Engineer, Airframe Branch, ANE-172, New York Aircraft Certification Office, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6220.

86-19-05 CASA: Amendment 39-5406. Applies to CASA Model C-212 series airplanes as listed in CASA Service Bulletin 212-24-33, Revision 2, dated October 23, 1985, certificated in any category. Compliance is required within 90 days after the effective date of this AD. To preclude the loss of navigation and communications capability due to a single electrical system failure, accomplish the following, unless previously accomplished:

A. Modify the electrical system in accordance with CASA Service Bulletin 212-24-33, Revision 2, dated October 23, 1985.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to Construcciones Aeronauticas, S.A., Getafe, Madrid, Spain. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office. 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective October 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168

86-19-06 BOEING: Amendment 39-5404. Applies to Boeing Model 737-300 airplanes listed in Boeing Service Bulletin 737-21-1085, dated February 14, 1986, certificated in any category. Compliance required within 180 days after the effective date of this amendment, unless already accomplished.

To ensure air ducts have adequate flammability characteristics accomplish the following:

A. Replace air ducts in accordance with Boeing Service Bulletin 737-21-1085, dated February 14, 1986, or later FAA-approved revisions.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the applicable service bulletin from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective October 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Jeff Gardlin, Airframe Branch, ANM-120S; telephone (206) 431-2932. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-19-06 BOEING: Amendment 39-5404. Applies to Boeing Model 737-300 airplanes listed in Boeing Service Bulletin 737-21-1085, dated February 14, 1986, certificated in any category. Compliance required within 180 days after the effective date of this amendment, unless already accomplished.

To ensure air ducts have adequate flammability characteristics accomplish the following:

A. Replace air ducts in accordance with Boeing Service Bulletin 737-21-1085, dated February 14, 1986, or later FAA-approved revisions.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the applicable service bulletin from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective October 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Jeff Gardlin, Airframe Branch, ANM-120S; telephone (206) 431-2932. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

BOEING
Airworthiness Directive
VOLUME II

86-19-07 BOEING: Amendment 39-5402. Applies to all Model 767 airplanes, certificated in any category, listed in Boeing Service Bulletin 767-52-0042, Revision A, dated January 15, 1986. To prevent structural failure of the vertical fin in the event of a rupture of the aft pressure bulkhead, accomplish the following within 12 months after the effective date of this amendment, unless already accomplished:

A. Install a stronger replacement fin access door or reinforce the existing fin access door in accordance with Boeing Service Bulletin 767-52-0042, Revision A, dated January 15, 1986, or later FAA-approved revisions.

B. Alternate means of compliance or adjustment of compliance times, which provide an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective October 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Richard Yarges, Aerospace Engineer, Airframe Branch, ANM-120S; telephone (206) 431-2925. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-19-08 MCDONNELL DOUGLAS: Amendment 39-5405. Applies to McDonnell Douglas Model DC-10-10, -15, -30, -40, and KC-10A (Military) series airplanes, certificated in any category.

Compliance required as indicated unless previously accomplished.

To assure proper operation of the right-hand forward passenger emergency exit operating handle, accomplish the following:

A. Within the next 12 months after the effective date of this AD, modify, reidentify, and reinstall the right-hand forward door assembly and escutcheon assembly in accordance with the Accomplishment Instructions of McDonnell Douglas DC-10 Service Bulletin 25-339, dated December 4, 1985, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-L65 (54-60). These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This Amendment becomes effective October 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Edward S. Chalpin, Aerospace Engineer, Systems & Equipment Branch, ANM-131L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6323.

86-19-09 MCDONNELL DOUGLAS: Amendment 39-5403. Applies to McDonnell Douglas Model DC-10-10, -15, -30, and -40 and KC-10A (Military) series airplanes, certificated in any category.

Compliance is required as indicated, unless previously accomplished.

To preclude potential fuel feed line failures and resulting unusable fuel or fuel imbalance, complete the following:

A. Within the next eighteen (18) months, or 4500 flight hours, whichever occurs first, after the effective date of this AD, complete the modifications and installations in accordance with the accomplishment instructions of McDonnell Douglas DC-10 Service Bulletin 28-140, Revision 1, dated October 16, 1985, and Service Bulletin 28-163, Revision 1, dated July 18, 1986, or later revisions approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

B. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-L65 (54-60). These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective October 2, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Roy A. McKinnon, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6327.

DEHAVILLAND
Airworthiness Directive
Final Copy of Telegram
VOLUME II

86-14-51 DEHAVILLAND AIRCRAFT OF CANADA, LTD.: Amendment 39-5423. Applies to Model DHC-8-101 series airplanes, Serial Number 003 and subsequent, certificated in any category. Compliance is required before further flight, unless previously accomplished.

To preclude the uncommanded deployment of ground spoilers and roll control spoilers in the ground mode, accomplish the following:

A. Lockout circuit breaker ROLL SPLRS CONT, location F6, right essential bus, and circuit breaker GND SPLRS CONT, location C7, left main bus, in accordance with Section A of DeHavilland Alert Service Bulletin AB-27-25 dated July 3, 1986. Install a placard in the flight compartment, on the glareshield under the flight/taxi switch, to state the following: "GROUND SPOILERS AND ROLL CONTROL SPOILERS IN GROUND MODE ARE INOPERATIVE."

B. Insert a copy of this AD in the Airplane Flight Manual (AFM) Limitations Section. The elimination of all spoiler functions in ground mode increases landing distance and landing field length required by 15 percent when using flaps at 35 degrees (AFM, Figure 5.8.4) and 10 percent when using flaps at 15 degrees (AFM Supplement No. 9, Figure 5.8.7). With all spoiler functions in ground mode inoperative, there is negligible increase in the takeoff distance required and the takeoff run required.

C. An alternate means of compliance which provides an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to DeHavilland Aircraft of Canada, Ltd., Garrett Boulevard, Downsview, Ontario M3K 1Y5, Canada. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York.

This amendment becomes effective October 6, 1986, as to all persons, except those persons to whom it was made immediately effective by telegraphic AD T86-14-51, issued July 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. C. Kallis or Mr. W. White, Systems Branch, ANE-173, FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

DELETED
Airworthiness Directive
Final Copy of Telegram
VOLUME II

86-16-04 R1 BRITISH AEROSPACE: Amendment 39-5383 as amended by 39-5416. Applies to Jetstream Model 3101 (all serial numbers) airplanes which have incorporated Arkansas Modification Center, Inc. (AMC) baggage pod Modification STC No. SA5900SW using baggage pod Serial Numbers 003 through 026, 028, 034, 035, 037, and 038.

Compliance: Required within the next 50 landings after the effective date of this AD, unless already accomplished.

NOTE: If landings are not recorded, one hour time-in-service (TIS) equals two landings.

To prevent possible scoring and failure of the two flap torque tubes, and subsequent loss of control of the aircraft, accomplish the following:

(a) Inspect the flap torque shaft in accordance with BAe Alert Service Bulletin (ASB) No. 27-JA850949 dated January 8, 1986, Section 2 B, "Inspection/Repair", Subparagraph (1)

(1) If scored in excess of 0.030 inches in depth, before further flight replace torque shaft with a serviceable shaft.

(2) If scoring does not exceed 0.030 inches in depth:

(i) Before further flight repair in accordance with BAe ASB No. 27-JA850949 dated January 8, 1986, Section 2B, "Inspection/Repair", Subparagraph (3), and

(ii) Inspect for cracks using a dye penetrant inspection to establish integrity of the shaft. If cracks are found, before further flight, replace torque shaft with a serviceable shaft.

(b) Rework panels F21 and F22 in accordance with Arkansas Modification Center, Inc. (AMC) Mandatory Service Bulletin (MSB) No. 25-0001(-1) dated May 13, 1986, Section 2A, "ACCOMPLISHMENT INSTRUCTIONS".

(c) Airplanes may be flown with the flap system rendered inoperative in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, FAA, Southwest Region, Special Programs Branch, ASW-190, 4400 Blue Mound Road, Post Office Box 1689, Fort Worth, Texas 76101.

All persons affected by this AD may obtain copies of Arkansas Modification Center, Inc., (AMC) Mandatory Service Bulletin (MSB) No. 25-0001(-1) dated May 13, 1986, referred to herein upon request to the Arkansas Modification Center, Inc., Post Office Box 3356, Adams Field, Little Rock, Arkansas 72203, and Alert Service Bulletin No. 27-JA85-0949 dated January 8, 1986, referred to herein upon request to the British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041 or

FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

Amendment 39-5383 became effective on August 13, 1986.

This amendment, 39-5416, becomes effective September 20, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. William Simmons, FAA, ASW-190, 4400 Blue Mound Road, Fort Worth, Texas 76101; Telephone (817) 624-5199 or Mr. John P. Dow, Sr., FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

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86-20-02 AEROSPATIALE: Amendment 39-5429. Applies to Model ATR-42 airplanes, certificated in any category. Compliance is required as indicated, unless previously accomplished.

To prevent uncommanded pitch excursions from occurring during flight in icing conditions at a flap setting of 45 degrees, accomplish the following:

A. Within seven days after effective date of this AD, incorporate the following into the Limitations Section of the Airplane Flight Manual (AFM). This may be accomplished by including a copy of this AD in the AFM.

"Flap extension in excess of 30 degrees is not authorized during any normal or abnormal flight conditions. During an emergency landing or ditching, as required by the flight crew, flap 45 degrees may be used."

B. Within 21 days after effective date of AD, apply temporary Scotchcal adhesive labels to the speed limits placard and to the flaps control sector markings, to provide VFE and approach/landing settings consistent with the limitations required in paragraph A., above, in accordance with Aerospatiale (ATR) Service Bulletin ATR42-27-0004, dated September 3, 1986.

C. No later than December 1, 1986, replace previously installed temporary adhesive labels with permanent engraved labels with the same markings, and install a stop on the flaps control in accordance with Aerospatiale (ATR) Service Bulletin ATR42-27-0004, dated September 3, 1986.

NOTE: The mechanical stop which precludes the normal use of flaps 45 degree operations may be removed in case of emergency ditching or emergency landing, when, at the discretion of the flight crew, additional safety would be provided by using flaps 45 degrees.

D. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer, may obtain copies upon request to Aerospatiale, 316 Route de Bayonne, 31060 Toulouse Cedex 03, France. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington

This amendment becomes effective October 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-20-03 BEECH AIRCRAFT CORPORATION: Amendment 39-5413. Applies to the following Beech Airplanes certificated in any category:

MODEL	SERIAL NUMBERS S/N	REFERENCE SERVICE INSTRUCTION NO.
65-90, 65-A90, B90, C90, C90A; E90; F90; 200, B200; 200C, B200C; 200CT, B200CT; 200T, B200T	LJ-1 thru LJ-1110; LW-1 thru LW-347; LA-2 thru LA-236; BB-2 thru BB-1217; BL-1 thru BL-112 and BL-124 BN-1 thru BN-4; BT-1 thru BT-30;	Beechcraft Mandatory Service Instruction No. 2028, Rev. II, dated November 1985
300	FA-1 thru FA-38 and FA-40 thru FA-50	
1900 1900C Airliner	UA-1 thru UA-3 UB-1 thru UB-44	
H90 (T-44A)	LL-1 thru LL-18, LL-20 thru LL-31, LL-33 thru LL-40, LL-42 thru LL-48, and LL-50 thru LL-61	Beech T-44A Service Instructions No. T-44A-0058
A200 (C-12A) A200 (C-12C) A200CT (C-12D)	BD-1 thru BD-30; BC-1 thru BC-75; BP-1, BP-22, BP-24 thru BP-39; BP-40 and BP-45;	Beech C-12 Service Instructions No. C-12-0103
A200CT (RC-12D) A200CT (RC-12G) A200CT (FWC-12D) A200C (UC-12B)	GR-1 thru GR-13; FC-1 thru FC-3; BP-7 thru BP-11; BJ-1 thru BJ-66	
65-A90-1 (U-21A)	LM-1 thru LM-63, LM-65, LM-67 thru LM-69, LM-71 thru LM-107, and LM-112 thru LM-124;	Beech U-21 Service Instruction No. U-21-0002
65-A90-1 (JU-21A) 65-A90-1 (U-21G) 65-A90-1 (RU-21A)	LM-64, LM-66, LM-70; LM-125 thru LM-141; LM-108 thru LM-111;	

65-A90-2 (RU-21B) LS-1 thru LS-3;
65-A90-3 (RU-21C) LT-1 and LT-2;
65-A90-4 (RU-21H) LU-1 thru LU-16

Compliance: Required as indicated after the effective date of this AD, unless previously accomplished.

To preclude improper operation of the elevator trim system, accomplish the following:

(a) Within the next 25 hours time-in-service, perform the following:

(1) Check the operation of the elevator trim system and mark the elevator trim indicator scale in accordance with Part I or Part II of Beech Service Bulletin No. 2028, Rev. II, dated November 1985.

(2) For the Models 65-90, 65-90A, B90, C90, C90A, and E90 airplanes, mark the elevator trim tab push rods in accordance with Part I or Part II of Beech Service Bulletin No. 2028, Rev. II, dated November 1985.

NOTE: The following airplanes have been previously marked by the manufacturer per paragraphs (a)(1) and (a)(2) of this AD:

Models C90A (S/N LJ-1077 thru LJ-1110), F90 (S/N LA-223 thru LA-236), B200 (S/N BB-1193 thru BB-1217), B200C (S/N BL-72 thru BL-112 and BL-124), 300 (S/N FA-1, FA-38 and FA-40 thru FA-50), and 1900 (S/N UB-9 thru UB-44).

(3) Place the Elevator Trim System Preflight Check Procedure, shown in Attachment 1 to this AD, in the Limitations Section of the FAA Approved Airplane Flight Manual for the Models 65-90, 65-A90, B90, C90, E90, and 200T/2Q0CT airplanes; and the Limitations Section of the Pilot's Operating Handbook and the FAA Approved Airplane Flight Manual for the Models C90, C90A, F90, 200/200C, B200T, B200CT, 300, and 1900/1900C airplanes.

(b) Prior to March 1, 1987, modify the elevator trim system in accordance with the instructions contained in Beechcraft Service Bulletin No. 2028, Rev. II, Part III, dated November 1985.

(c) The requirements of paragraph (a) of this AD are not required after the modification required by paragraph (b) of this AD is accomplished.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where the AD may be accomplished.

(e) An equivalent means of compliance with this AD may be used, if approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4400.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Beech Aircraft Corporation, 9709 East Central, P.O. Box 85, Wichita, Kansas 67201; or the FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on October 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Dale A. Vassalli, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; Telephone (316) 946-4419.

ATTACHMENT 1

OPERATING LIMITATION:

The Elevator Trim System Preflight Check procedure, as defined below, must be conducted prior to each flight.

To verify that the elevator trim cable is not fouled or disengaged from the cable drum the following Elevator Trim System Preflight Check is required prior to each flight of the Beech Models 65-90, 65-A90, B90, C90, C90A, E90, F90, 200, B200, 200C, B200C, 200CT, B200CT, 200T, B200T, 300, 1900 and 1900C airplanes:

COCKPIT

1. Control Locks - REMOVE
2. Elevator Trim:
   a. All airplanes except 1900/1900C - SET TO "0" UNITS
   b. 1900/1900C airplanes - SET TWO UNITS NOSE UP

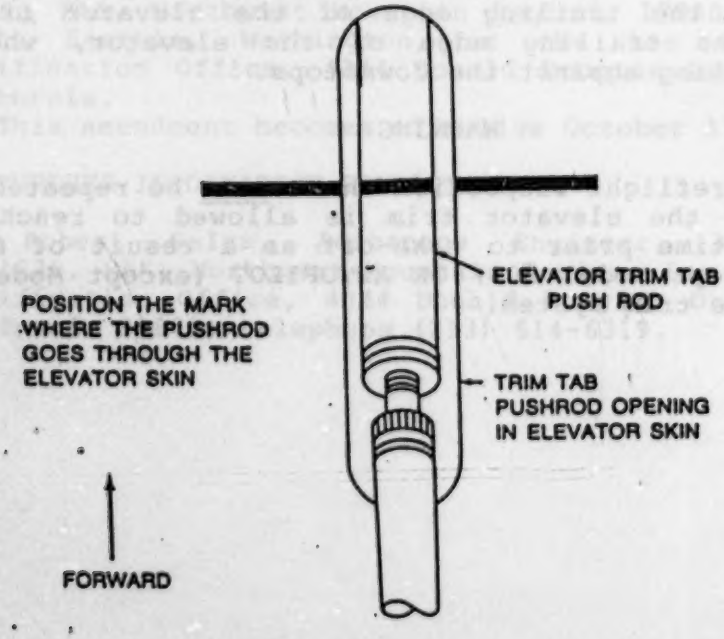
CAUTION

The elevator trim system must not be forced past the limits which are indicated on the elevator trim indicator scale either manually, electrically (except Model 300) or by action of the autopilot (except Model 300).

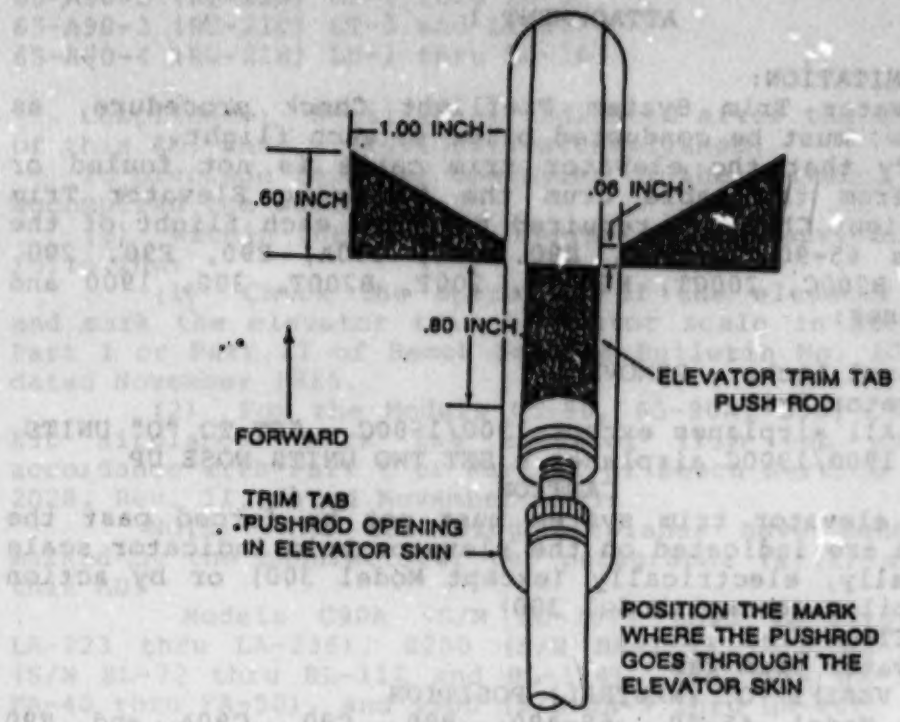
TAIL SECTION

1. Elevator Trim Tab
   a. VERIFY "0" (NEUTRAL) POSITION

1. On Model 65-90, 65-A90, B90, C90, C90A and E90 airplanes, the elevator trim tab "0" (neutral) position is determined by observing that the alignment marks on the elevator trim tab pushrods align with the alignment marks on the elevator (See Figure 1 or 2 below), when the elevator is resting against the downstops.



Pushrod Marking (Temporary)
Figure 1



Pushrod Marking (Permanent)
Figure 2

2. On F90, 200 Series, 300 and 1900/1900C airplanes, the elevator trim tab "O" (neutral) position is determined by observing that the trailing edge of the elevator trim tab aligns with the trailing edge of the elevator, when the elevator is resting against the downstops.

WARNING

The above Preflight Inspection check must be repeated prior to take-off if the elevator trim is allowed to reach limit travel at any time prior to take-off as a result of MANUAL, ELECTRICAL (except Model 300) OR AUTOPILOT (except Model 300) OPERATION of the trim system.

86-20-05 BOEING: Amendment 39-5426. Applies to Boeing Model 707-300 series airplanes modified in accordance with Supplemental Type Certificate (STC) SA2699NM, certificated in any category. Compliance required as indicated, unless previously accomplished.

To prevent loss of engine core cowl door, within 150 hours time in service, or within 30 days, whichever occurs earlier after the effective date of this AD, accomplish the following:

A. Modify the core cowl doors and pylon support brackets in accordance with Tracor Aviation Alert Service Bulletins AQ707-71-006, Revision 1, dated February 18, 1986; AQ707-71-012, Revision 1, dated September 5, 1986; AQ707-71-013, dated September 4, 1986; and Tracor Aviation Service Bulletins Q707-71-007, dated March 7, 1986; Q707-71-009, Revision 1, dated July 9, 1986; Q707-71-010, dated May 30, 1986; or later FAA-approved revisions.

B. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Tracor Aviation, Inc., 495 South Fairview Avenue, Goleta, California 93117, Attention: Customer Services. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective October 13, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert Salas, Aerospace Engineer, Airframe Branch, ANM-122L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6319.

86-20-06 BELL HELICOPTER TEXTRON, INC.: Amendment 39-5427. Applies to Bell Helicopter Textron, Inc., Model 214ST helicopters, S/N's 28101 through 28159, and Models 214B and 214B-1, S/N's 28001 through 28070, certificated in any category, equipped with main rotor drag brace assembly P/N 214-010-113-001.

Compliance is required as indicated, unless already accomplished.

(a) To prevent failure of the M/R drag brace assembly, P/N 214-010-113-001, on the Model 214ST helicopter, replace it with M/R drag brace assembly, P/N 214-010-113-105, within the next 50 hours' time in service or within 30 days after the effective date of this AD, whichever comes first.

(b) To prevent failure of the M/R drag brace assembly, P/N 214-010-113-001 on the Model 214B and 214B-1 helicopters, replace it with M/R drag brace assembly, P/N 214-010-113-107, within the next 50 hours' time in service or within 30 days after the effective date of this AD, whichever comes first.

(c) An alternate method of compliance which provides an equivalent level of safety with this AD may be used when approved by the Manager, Helicopter Certification Branch, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas 76106.

This amendment becomes effective October 18, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. T. K. Henry, Helicopter Certification Branch, ASW-170, Aircraft Certification Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, telephone number (817) 624-5168.

86-20-08 MCDONNELL DOUGLAS: Amendment 39-5434. Applies to McDonnell Douglas Model DC-8 series -10 thru -50, -61, -61F, -71, and -71F airplanes with left and/or right wing front spar lower cap Part Numbers 5597838-1, -2, not modified in accordance with McDonnell Douglas DC-8 Service Bulletin 57-90, dated October 3, 1983, certificated in any category. Compliance required as indicated.

To prevent the loss of structural integrity of the left and/or right wing due to metal fatigue failure of the front spar lower cap, prior to the accumulation of 30,000 flight-hours or within 200 flight-hours after the effective date of this AD, whichever occurs later, accomplish the following, unless already accomplished within the last 3,400 flight-hours:

A. Visually or eddy current inspect left and right wing front spar lower cap, P/N's 5597838-1, -2, between Stations Xfs = 515.000 and Xfs = 526.760 for cracks in accordance with paragraph 2.B. of McDonnell Douglas DC-8 Service Bulletin 57-90 dated October 3, 1983; or later FAA-approved revisions.

B. If no crack is found, accomplish repetitive inspections on the spar cap in accordance with paragraph A. of this AD, at intervals not to exceed 3,600 flight-hours or one calendar year, whichever occurs first.

C. If crack(s) are found, before further flight:

1. For cracks within repairable limits, as defined by paragraph 2.B. of DC-8 Service Bulletin 57-90, repair cracked spar cap in accordance with paragraph 2.B. of that service bulletin.

2. For cracks greater than those specified by the above service bulletin, repair in a manner approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Modification of the attach holes in the forward tang of the front spar lower cap in accordance with paragraph 2.B. of DC-8 Service Bulletin 57-90 constitutes terminating action for the repetitive inspection requirements in paragraph B. of this AD.

E. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the

manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director, Publications and Training, C1-L65 (54-60). These documents also may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This Amendment becomes effective October 20, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. David Y. J. Hsu, Aerospace Engineer, Airframe Branch, ANM-122L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6319.

86-20-09 ROLLS-ROYCE plc (formerly Rolls-Royce Limited): Amendment 39-5425. Applies to Rolls-Royce (R-R) RB211-22B turbofan engines.

Compliance is required as indicated, unless already accomplished.

To prevent disk failures that can cause uncontained engine failures, accomplish the following:

(a) Remove from service, prior to further flight, all intermediate pressure compressor (IPC) stage 6 to 7 rotor assemblies listed individually by serial numbers in Appendices 1 and 2 of R-R Mandatory Service Bulletin (SB) RB.211-72-6427, Revision 2, dated June 30, 1984, or FAA approved equivalent, that have accumulated total cycles in service since new, on the effective date of this AD, in excess of the service life specified in those appendices.

(b) Remove from service all IPC stage 6 to 7 rotor assemblies listed individually by serial number in Appendices 1 and 2 of R-R Mandatory SB RB.211-72-6427, Revision 2, dated June 30, 1984, or FAA approved equivalent, on or before attaining the service life specified in their respective appendix.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

R-R Mandatory SB RB.211-72-6427 dated June 30, 1984, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Rolls-Royce plc, P.O. Box 31, Derby DE2 8BJ, England. This document also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-35, Room 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective on November 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

86-20-10 ROLLS-ROYCE plc: Amendment 39-5415. Applies to Rolls-Royce Dart Mks., 506, 506F, 510, 510A, 511, 511-7E, 514, 514-7, and 515 turboprop engines.

Compliance is required as indicated, unless already accomplished.

To prevent cracking of high pressure turbine disks, install new or reworked oversize high pressure nozzle guide vane(s) in accordance with Rolls-Royce Dart (R-R) Service Bulletin (SB) Da72-451, Revision 5, dated June 1982, or FAA approved equivalent, by October 1, 1987.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

R-R SB Da72-451, Revision 5, dated June 1982, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Rolls-Royce plc - East Kilbride, Attn: Dart Engine Service Manager, Glasgow G74-4PY, Scotland. This document may also be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Room 311, Rules Docket Number 86-ANE-19, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective on November 4, 1986.

FOR FURTHER INFORMATION CONTACT:

Marc J. Bouthillier, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7085.

T86-19-51 MCDONNELL DOUGLAS: Telegram issued September 25, 1986. Applies to Model DC-9-80 series airplanes, fuselage number 1243 thru 1286, 1289 thru 1304, and 1306, certificated in any category.

To prevent elevator jamming, which could result in loss of adequate aircraft control, accomplish the following, unless previously accomplished:

A. Within six (6) calendar days after the effective date of this AD:

1. Open access doors 3507 and 3608 to gain access to inspection area on lower elevator surface, in accordance with DC-9-80 Maintenance Manual, Chapter 6-23-00.

2. Visually inspect left and right elevator hydraulic boost cylinder attach rod ends and verify that retaining nut and cotter pin are installed.

3. If rod end washer, nut, and/or cotter pin are missing, install new PLI-8-13.5 washer, 83494-820 nut, and MS24665-302 cotter pin, as necessary, as follows:

Tighten nut to a torque of 250-270 inch-pounds. If slot in nut and cotter pin hole in rod end align, install cotter pin. If slot in nut and cotter pin hole in rod end do not align, tighten nut a minimum amount required to obtain alignment (60 degrees maximum) to next slot and install cotter pin. Ring on PLI washer must be free to rotate after cotter pin installation. Cotter pin hole direction is machined on end of rod end for use as an installation aid.

B. Alternate means of compliance which provides an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

This airworthiness directive becomes effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:

Michael N. Asahara, Aerospace Engineer, Airframe Branch, ANM-120L, Federal Aviation Administration, Los Angeles Area Aircraft Certification Office, Northwest Mountain Region, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6321.

DEHAVILLAND
Airworthiness Directive
Final Copy of Telegram
VOLUME II

86-16-51 DEHAVILLAND: Amendment 39-5433. Applies to DeHavilland Model DHC-8 airplanes, certificated in any category, serial numbers 003, 005, and subsequent. Compliance is required before further flight, unless previously accomplished.

To preclude the uncommanded retraction of the main landing gear, accomplish the following:

A. Insert a copy of this AD in the Airplane Flight Manual (AFM) and advise all flight crew members. For takeoff, landing, and while on the ground, isolate the main landing gear actuation hydraulics by complying with the following revised flight manual procedures:

OPERATING LIMITATIONS:

(A) Nosewheel steering switch must be selected OFF.

(B) Takeoff or landing in cross winds exceeding 20 knots is not permitted.

NOTE: Information presented in Supplement 12 of the Airplane Flight Manual (Operation with Inoperative Nose Wheel Steering) is in error and will be amended in the next AFM revision.

2. NORMAL OPERATING PROCEDURES:

- Flight Compartment Check - POWER ON.
- (ADD) Landing Gear Selector Lever - DOWN. Check 3 green lights ON. All door and gear unlocked lights OUT. Selector lever light OUT.
- Landing Gear Inhibit Switch - INHIBIT.
- Landing Gear Alternate Release Door - OPEN FULLY.
- Landing Gear Alternate Extension Door - OPEN FULLY.
- Hydraulic Pump Handle - INSERT IN HAND PUMP SOCKET AND OPERATE UNTIL HAND PUMP MOVEMENT BECOMES STIFF.
- Hydraulic Pump Handle - STOW.

Pre-Taxi Checks:

11. (CHANGE) Nosewheel Steering Switch - OFF. Steer the airplane on the ground by means of differential braking and power lever adjustment.

After Takeoff:

1. (CHANGE) Upon Achieving Positive Rate of Climb:

- Landing Gear Alternate Release and Landing Gear Alternate Extension Doors - CLOSE FULLY.
- Landing Gear Inhibit Switch - NORM.
- Landing Gear Selector Lever - UP. Check all gear and door lights and gear selector lever light OUT.

NOTE: Should landing gear selector lever be selected UP prior to closing Landing Gear Alternate Release and Landing Gear Alternate Extension Doors and prior to selecting Landing Gear Inhibit Switch to NORMAL, reselect Landing Gear Selector Lever DOWN and accomplish gear retraction as per revised procedure.

NOTE: Landing Gear Alternate Release and Landing Gear Alternate Extension Doors and Landing Gear Inhibit Switch are not within reach of captain when secured in left-hand seat in normal flying position.

Approach:

1. (CHANGE) Landing Gear Selector Lever - DOWN.
   - Check 3 green lights ON.
   - All door and gear unlocked lights OUT.
   - Selector lever light OUT.
   - Landing Gear Inhibit Switch - INHIBIT.
   - Landing Gear Alternate Release Door - OPEN FULLY.
   - Landing Gear Alternate Extension Door - OPEN FULLY.
   - Hydraulic Pump Handle - INSERT IN HAND PUMP SOCKET AND OPERATE UNTIL HAND PUMP MOVEMENT BECOMES STIFF.
   - Hydraulic Pump Handle - STOW.
   - (ADD) Nosewheel Steering Switch - OFF.

Go-around from final approach:

5. (CHANGE) Upon achieving positive rate of climb:
   - Landing Gear Alternate Release and Landing Gear Alternate Extension Doors - CLOSE FULLY.
   - Landing Gear Inhibit Switch - NORMAL.
   - Landing Gear Selector Lever - UP. Check all gear and door lights and gear selector lever light OUT.

3. EMERGENCY OPERATING PROCEDURES:

Engine Failure or Fire After V1:

2. (CHANGE) Gear retraction procedures as above for go-around from final approach.

One Engine Inoperative Approach and Landing:

1. (CHANGE) Landing Gear:

If No. 1 Engine Inoperative:
- Gear extension procedure as above for approach.

If No. 2 Engine Inoperative:
- Airspeed - 140 KT IAS MAXIMUM.
- Landing Gear Inhibit Switch - INHIBIT.
- Landing Gear Selector Lever - DOWN.
- Landing Gear Alternate Release Door - OPEN FULLY.
- Main Landing Gear Release Handle - PULL FULLY DOWN.
- Landing Gear Alternate Extension Door - OPEN FULLY. Insert pump handle in hand pump socket and operate until main landing gear locks down (left and right green lights ON, and left door and right door amber lights ON) and handpump movement becomes stiff.
- Nose Gear Alternate Release Handle - PULL FULLY UP. Check nose green light and nose door amber light on. If any of the gear locked down (green) lights fail to illuminate:
- Gear Locked Down Indicator Light Switch - ON. Check for illumination of appropriate gear down lock alternate light.
- Anti-skid Switch - TEST.
- PTU Manual Switch - PTU MANUAL.

One Engine Inoperative Approach Climb (Overshoot):

3. (CHANGE) Gear retraction procedure as above for go-around from final approach.

4. PERFORMANCE DATA:

(A) Takeoff Distance Required - INCREASE BY TWO PERCENT.

(B) Takeoff Run Required - INCREASE BY TWO PERCENT.

(C) Accelerate-Stop Distance Required - INCREASE BY TWO PERCENT.

B. No later than November 1, 1986, incorporate DHC Modification 8/0567 in accordance with DHC Service Bulletin 8-32-35, dated July 31, 1986. Remove the copy of this directive from the AFM.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer, may obtain copies upon request to DeHavilland Aircraft of Canada, Ltd., Garrett Boulevard, Downsview, Ontario M3K 1Y5, Canada. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York.

This airworthiness directive becomes effective October 20, 1986, as to all persons except those persons to whom it was made immediately effective by telegraphic AD T86-16-51, issued August 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. C. Kallis or Mr. W. White, Systems Branch, ANE-173, FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6427.

PRATT & WHITNEY
Airworthiness Directive
Revision
VOLUME II

86-08-04 R1 PRATT & WHITNEY: Amendment 39-5287 as amended by Amendment 39-5424. Applies to Pratt & Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR turbofan engines.

Compliance is required as indicated unless already accomplished.

To prevent crack propagation and subsequent high pressure compressor (HPC) removable sleeve spacer rupture, perform a one time, eddy current inspection of HPC removable sleeve spacers stages 7-8, 8-9, and 9-10 for cracks, and replace all stages of HPC removable sleeve spacers with the respective HPC integral sleeve spacers, in accordance with the procedures of PW Alert Service Bulletin (ASB) 5649, dated January 15, 1986, or FAA approved equivalent, per the following schedule:

(a) For HPC removable sleeve spacers stages 7-8, 8-9, and 9-10:

(1) Inspect spacers within the next 1,000 cycles in service from the effective date of this AD, or prior to reaching 1,700 cycles since the last in-shop fluorescent penetrant or ultrasonic inspection, whichever occurs later.

(2) Remove cracked spacers from service prior to further flight.

(3) Report the following information in writing for each inspection within 30 days of the inspection to the Manager, Engine Certification Office, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, (telex No. 949301 FAANE BURL) (reporting approved by the Office of Management and Budget (OMB) under OMB Number 2120-1156).

(i) Engine serial number
(ii) Inspection date
(iii) Spacer part number and serial number
(iv) Spacer total time and cycles
(v) Spacer time and cycles since last inspection
(vi) Spacer disposition (crack indication, no crack indication)
(vii) If a crack indication is present, report confirmation of location and crack size within 30 days after engine disassembly.

(b) Replace HPC removable sleeve spacers stages 7-8, 8-9, and 9-10 with the integral sleeve spacers at the next HPC rotor disassembly, but not to exceed 2 calendar years or 4,000 cycles in service, whichever occurs later from the effective date of this AD.

(c) Replace HPC removable sleeve spacers stages 10-11, 11-12, and 12-13 with the integral sleeve spacers at the next HPC rotor disassembly.

NOTES: (1) For the purposes of this AD, HPC rotor disassembly is defined as removal of any disk, spacer, or hub from the HPC rotor.

(2) For the purposes of this AD, the last in-shop fluorescent penetrant or ultrasonic inspection is that conducted in accordance with the procedures identified and described in the PW JT8D restructured Engine Manual Part Number 481672 or FAA approved equivalent.

Aircraft may be ferried in accordance with the provisions of FAR Parts 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

PW ASB 5649, dated January 15, 1986, identified and described in this directive, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain a copy upon request to Pratt & Whitney, Publication Department, P.O. Box 611, Middletown, Connecticut 06457. This document also may be examined at the Office of the Regional Counsel, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-46, Room Number 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday except Federal holidays.

The provisions of this amendment applicable to the stage 8-9 spacer become effective on the effective date of this amendment. The remaining provisions of this amendment applicable to stages 7-8 and 9-10 spacers are effective on May 27, 1986.

This amendment becomes effective on November 4, 1986.

This amendment amends Amendment 39-5287 (51 FR 12690), AD 86-08-04.

FOR FURTHER INFORMATION CONTACT:

Jim Jones, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, New England Region, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7121.

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86-23-01 BOEING: Amendment 39-5450. Applies to all Model 747 series airplanes, certificated in any category, line numbers 1 through 644.

To prevent separation of an engine due to failed H-11 bolts, accomplish the following, unless already accomplished:

A. Prior to accumulation of 10,000 flight hours, or within 100 landings after the effective date of this AD, whichever occurs later, perform a visual inspection of the outboard attach fitting H-11 bolts of all nacelle struts for structural integrity to determine if any H-11 bolts have failed, in accordance with Boeing Service Bulletin 747-57A2235, dated June 27, 1986, or later FAA-approved revisions. Repeat the inspections thereafter at intervals not to exceed 7-1/2 months.

B. Prior to accumulation of 10,000 flight hours, or within 600 landings after the effective date of this AD, whichever occurs later, perform a visual inspection of the inboard attach fitting joints of all nacelle struts for structural integrity to determine if any H-11 bolts have failed, in accordance with Boeing Service Bulletin 747-57A2235, dated June 27, 1986, or later FAA-approved revisions. Repeat the inspections thereafter at intervals not to exceed 15 months.

C. Failed bolts must be replaced prior to further flight.

D. Installation of the Inconel replacement bolts in accordance with Boeing Service Bulletin 747-57A2235, dated June 27, 1986, or later FAA-approved revisions constitutes terminating action for the repetitive inspections required by paragraph A. and B., above.

E. Within 24 months after the effective date of this AD, replace all remaining H-11 bolts on the outboard attach fitting of all nacelle struts with Inconel bolts in accordance with Boeing Service Bulletin 747-57A2235, dated June 27, 1986, or later FAA-approved revisions.

F. Within 48 months after the effective date of this AD, replace all remaining H-11 bolts on the inboard attach fitting of all nacelle struts with Inconel bolts in accordance with Boeing Service Bulletin 747-57A2235, dated June 27, 1986, or later FAA-approved revisions.

G. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

H. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

I. For the H-11 bolts that utilized the BACN10HR162 nuts, the accomplishment of the inspection requirements of AD 86-05-11 (Amendment 39-5255) is considered an acceptable alternate means of compliance for the initial inspection requirements of paragraph A. and B. of this AD.

NOTE: Inspections performed in accordance with Boeing Service Letter Number 747-SL-57-47, dated April 24, 1986, are considered equivalent to those performed in accordance with Boeing Service Bulletin 747-57A2235, dated June 27, 1986.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective December 1, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-1923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-23-03 PRATT & WHITNEY: Amendment 39-5455. Applies to Pratt & Whitney (PW) JT9D-7R4D, D1, E, and E1 turbofan engines. Compliance is required as indicated, unless already accomplished.

To prevent failure of the second stage high pressure turbine rotor (HPTR) airseal that can cause an uncontained engine failure, accomplish the following:

(a) Remove from service, HPTR airseal Part Number (P/N) 5001413-01 or 798916 and replace with HPTR airseal P/N 803673 or 803674, respectively, or rework HPTR airseal P/N 5001413-01 or 798916 in accordance with PW Alert Service Bulletin (ASB) JT9D-7R4-72-318, dated October 25, 1986, or FAA approved equivalent, per the following schedule:

(1) JT9D-7R4D1 and JT9D-7R4E1 series engines:

(i) Within 400 cycles in service (CIS) after the effective date of this AD, for HPTR airseals with greater than 800 CIS since new on the effective date of this AD.

(ii) Within 400 CIS after the effective date of this AD, or 800 CIS since new, whichever occurs later, for HPTR airseals with 800 CIS since new or less on the effective date of this AD.

(2) JT9D-7R4D and JT9D-7R4E series engines:

(i) Within 900 CIS after the effective date of this AD, for HPTR airseals with greater than 1,600 CIS since new on the effective date of this AD.

(ii) Within 900 CIS after the effective date of this AD, or 1,600 CIS since new, whichever occurs later, for HPTR airseals with 1,600 CIS since new or less on the effective date of this AD.

(b) Remove first stage high pressure turbine cooling (HPTC) airduct assembly, P/N 796123, 796975, or 796746, and replace with HPTC airduct assembly, P/N 804146, 804145, or 804148, respectively, or rework HPTC airduct assembly, P/N 796123, 796975, or 796746, in accordance with PW ASB JT9D-7R4-72-318, dated October 25, 1986, or FAA approved equivalent, concurrent with accomplishing paragraph (a) above.

(c) Modify the first stage turbine rotor assembly, P/N 792041, 792931, 795121, or 801821, by removing two units each of bolt, P/N 746130; washer, P/N 151178; and nut, P/N 341859; and redistributing the remaining units in accordance with PW ASB JT9D-7R4-72-318, dated October 25, 1986, or FAA approved equivalent, concurrent with accomplishing paragraph (a) above.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, may adjust the compliance times specified in this AD.

Pratt & Whitney ASB JT9D-7R4-72-318, dated October 25, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Pratt & Whitney, Commercial Products Division, 400 Main Street, East Hartford, Connecticut 06108. This document also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, Room 311, Rules Docket Number 86-ANE-42, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective on December 8, 1986.

FOR FURTHER INFORMATION CONTACT:

Diane Kirk, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7082.

86-23-04 FOKKER B.V.: Amendment 39-5459. Applies to Model F27 airplanes; serial numbers 10105 to 10648 inclusive, 10654, 10658, 10659, 10660, 10662 to 10667 inclusive, 10669, 10672 and 10678; certificated in any category. To ensure structural integrity of the elevator trim tab, accomplish the following, unless already accomplished:

A. Within 60 days after the effective date of this AD, conduct a one-time visual inspection of the elevator trim tab in accordance with Fokker Service Bulletin F27/55-59, Revision 1, dated October 15, 1985.

B. If incorrect rivets are installed, repair the tab before further flight in accordance with the above service bulletin.

C. An alternate means of compliance or adjustment of compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Manager of Maintenance and Engineering, Fokker B.V., Product Support, P.O. Box 7600, 11172J Schiphol Oost, the Netherlands. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or at the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective December 10, 1986.

FOR FURTHER INFORMATION CONTACT:

Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-1967. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-23-06 BOEING: Amendment 39-5467. Applies to Model 747 series airplanes listed in Boeing Alert Service Bulletin 747-53A2265, Revision 2, dated May 8, 1986, certificated in any category. To detect cracking of forward fuselage (Section 41) internal and external structure, accomplish the following, unless already accomplished:

A. For airplanes, line numbers 1 through 87, perform a visual or X-ray inspection for cracking of the body frame structure and skins from body station 360 through 380 from stringer 23 to the main deck floor, both left and right, in accordance with Boeing Service Bulletin 747-53A2265, Revision 2, dated May 8, 1986, or later FAA-approved revisions, in accordance with the schedule described in paragraph B., below.

B. For airplanes, line numbers 88 through 603, perform a visual or X-ray inspection for cracking of the body frame structure and skins in the following areas: on the main deck between body stations 240 and 400 from stringer 23 to the floor, both left and right; between body stations 200 and 240 from stringer 13A to 14E, both left and right; and at the body station 360 frame web at stringer 3L, in accordance with Boeing Service Bulletin 747-53A2265, Revision 2, dated May 8, 1986, or later FAA-approved revisions, in accordance with the following schedule:

1. On airplanes that have accumulated more than 14,000 landings as of the effective date of this AD, inspect within 100 landings after the effective date of this AD.

2. On airplanes that have accumulated 12,000 to 14,000 landings as of the effective date of this AD, inspect within 200 landings after the effective date of this AD.

3. On airplanes that have accumulated fewer than 12,000 landings as of the effective date of this AD, inspect within 1000 landings after the effective date of this AD, or prior to the accumulation of 10,000 landings, whichever occurs later.

NOTE: Paragraphs A. and B. are part of telegraphic AD T86-03-51, effective May 19, 1986. AD T86-03-51 is superseded by this AD.

C. For airplanes, line numbers 88 through 603, within the next 600 landings after the effective date of this AD, or prior to the accumulation of 8,000 landings, whichever occurs later, perform a visual or X-ray inspection, for cracking, in accordance with Boeing Service Bulletin 747-53A2265, Revision 3, dated July 29, 1986, or later FAA-approved revisions, of the body frame structure and adjacent skin in the following areas: the lower forward corner of the overhead escape hatch, body

station 360 at stringer 3L; and both sides of the airplane below the window belt and above the main deck floor (stringer 22 to stringer 26) from body stations 300 through 320.

D. Except as provided in paragraph O., below, for airplanes, line numbers 1 through 603, within the next 1,000 landings after the effective date of this AD, or prior to the accumulation of 10,000 landings, whichever occurs later, perform the following visual or X-ray inspections for cracking, in accordance with Boeing Service Bulletin 747-53A2265, Revision 3, dated July 29, 1986, or later FAA-approved revisions:

1. Inspect body frames and adjacent skin in the following areas: on both sides of the airplane from body station 200 through 240 between stringers 13A and 14E, at body station 240 between stringers 6 and 13A, from body station 240 through 400 between stringers 22 and 26, and from body station 500 through 520 between stringers 30 and 34; and on the left side of the airplane at body station 360 at stringer 3L.

2. Inspect body frames and floor beams at frame to floor beam attach location, and the adjacent skin on both sides of the airplane in the area of body station 330 between stringers 11 and 14 on both sides of the airplane.

3. Inspect body frames, adjacent skin, and tear straps on both sides of the airplane in the area from body station 360 through 420 between stringers 4 and 10A.

4. Inspect (a) body frames and adjacent skin, (b) sills, intercostals, and stringers, (c) floor beams within 3 inches of frames, and (d) skin and skin splices (internal and external general visual inspection with detailed external visual inspection at door cutout corners and body station 417, 460 and 480) on both sides of the airplane from body station 400 through 520 between upper deck floor and stringer 30.

E. Except as provided in paragraph O., below, for airplanes, line numbers 1 through 603, within the next 1,000 landings after the effective date of this AD, or prior to the accumulation of 13,000 landings, whichever occurs later, perform the following visual or X-ray inspections for cracking, in accordance with Boeing Service Bulletin 747-53A2265, Revision 3, dated July 29, 1986, or later FAA-approved revisions.

1. Inspect body frame structure, adjacent skin, tear straps, and sills on both sides of the airplane in the area from body station 340 through 400 between stringer 0 and the upper deck floor.

2. Inspect body frames, adjacent skin, and tear straps on both sides of the airplane in the area from body station 400 through 520 between stringer 6 and the upper deck floor.

3. Perform the inspections defined in paragraph D., above.

F. Except as provided in paragraph O., below, for airplanes, line numbers 1 through 603, within the next 500 landings after the effective date of this AD, or prior to the accumulation of 16,000 landings, whichever occurs later, perform the following visual or X-ray inspections for cracking of the body frames and adjacent skin in the following areas on

both sides of the airplane, in accordance with Boeing Service Bulletin 747-53A2265, Revision 3, dated July 29, 1986, or later FAA approved revisions:

- From body station 200 through 220 between stringers 0 and 13A;
- From body station 220 through 240 between stringers 0 and 6;
- From body station 240 through 400 between stringers 14 and 19;
- From body station 240 through 400 between stringers 26 and 34;
- From body station 400 through 480 between stringers 30 and 34;
- From body station 320 through 340 between stringer 0 and cabin window upper sill;
- From body station 400 through 520 between stringer 0 and 6;
- At body station 240 between stringer 34L and 34R in belly area; and
- At body station 320 between stringer 34 to nose wheel well.

G. Except as provided in paragraph O., below, for airplanes, line numbers 1 through 603, within the next 500 landings after the effective date of this AD, or prior to the accumulation of 19,000 landings, whichever occurs later, perform visual or X-ray inspection, in accordance with Boeing Service Bulletin 747-53A2265, Revision 3, dated July 29, 1986, or later FAA-approved revisions, for cracking of the body frames and adjacent skin from body station 140 through 520 that are not identified in paragraphs D., E., and F., above.

H. Repeat the inspections required by paragraphs D., E., F., and G., above, at the following intervals:

1. If the immediately prior inspection was accomplished using visual methods, including borescope inspection methods described in Boeing Service Bulletin 747-53A2265, Revision 3, dated July 29, 1986, or later FAA-approved revision, perform the next inspection within the next 3,000 landings.

2. If the immediately prior inspection was accomplished using X-ray methods, perform the next inspection within the next 1,500 landings.

I. If X-ray results give indications of cracking, visually inspect the structure to determine the full extent of frame cracking in accordance with the following schedule:

1. Prior to further flight for all findings that indicate possible skin cracking, cracks exceeding the limits of Boeing Service Bulletin 747-53A2265, Revision 2, dated May 8, 1986, in one or more frames, or cracking in two or more adjacent frames.

2. Within 150 landings for all findings that indicate partial severance of one frame not exceeding the limits of Boeing Service Bulletin 747-53A2265, Revision 2, dated May 8, 1986, provided no adjacent skin cracking or adjacent frame cracking is found.

J. If any cracking is found by visual inspection, repair in accordance with FAA-approved procedures prior to further flight, unless cracking does not exceed the limits of the provisions of Section III, Paragraph G., of Boeing Service

Bulletin 747-53A2265, Revision 2, dated May 8, 1986, or later FAA-approved revision.

K. For the purpose of complying with this AD, the number of landings may be determined to equal the number of pressurization cycles where the cabin pressure was greater than 2.0 PSI.

L. For Model 747SR airplanes only, based on continued mixed operation of lower cabin differentials, the initial inspection thresholds and the repetitive inspection intervals specified in this AD may be multiplied by a 1.2 adjustment factor.

M. For structure which has been replaced with new structure during previous airplane modification/repair, the inspection requirements above date from the time of replacement of that structure.

N. The requirement for the repetitive inspections of existing structure (skin, stringers, clips, shear ties, etc.) adjacent to any new body frame may be deferred for 10,000 landings, provided the adjacent structure was inspected and all cracks were repaired when the new frame was installed. The inspection requirements above date from the time of replacement of the frame.

In the area of stringer 6, from body stations 340 to 520, this deferral is contingent upon also accomplishing the following:

1. Tear strap modification at body stations 360 to 500, both left and right sides, in accordance with FAA approved procedures. (Tear strap modification is not required at body stations 380 to 440 on the right hand side for airplanes with right hand side crew service doors, and body stations 380 to 440 on the left hand side for airplanes with left hand side crew service doors.)

2. Replace stringer S-6 at body stations 340 to 400, both left and right sides. (Stringer replacement is not required at body stations 390 to 400 at crew service door locations.)

NOTE: For example: The original threshold was 13,000 landings. The frame segment is replaced at 14,000 landings with a new frame segment. The next inspection threshold will be 10,000 landings after replacement. This will be followed by the resumption of the repetitive inspections at intervals of 1500 or 3,000 landings.

O. Upper deck right side inspection from body station 340 to 400 need be accomplished only if (1) any cracking is found, or if any cracking was previously repaired, on upper deck left side from body station 340 to 400, excluding any body station 360 frame web cracking at left stringer 3 adjacent to the crew escape hatch lower forward corner; (2) if left side structure was previously replaced or modified; or (3) if, at the last inspection of the left side, the inspection was deferred on the right side.

P. An alternate method of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

Q. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

R. Installation of new and improved body frame structure in accordance with FAA-approved procedures is terminating action for the repetitive inspections required by this AD for the structure replaced and other adjacent structure.

S. An acceptable equivalent method of compliance with this AD is the accomplishment of the inspections of Section 41 in accordance with the instructions and compliance schedule of Boeing Service Bulletin 747-53A2265, Revision 3, dated July 29, 1986, or later FAA-approved revisions.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This supersedes AD T86-03-51, Amendment 39-5297 (51 FR 16155; May 1, 1986), issued February 16, 1986.

This amendment, 39-5467, becomes effective December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen Schrader, Airframe Branch, ANM-120S; telephone (206) 431-1923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SIKORSKY
Airworthiness Directive
VOLUME II

86-23-08 SIKORSKY AIRCRAFT: Applies to Model S-61 series helicopters, certificated in any category, with main rotor hub lower plate, P/N S6110-23009-6 or -8, installed.

For helicopters with main rotor hub lower plates with more than 27,000 hours' time in service on the effective date of this AD, compliance is required prior to further flight, unless already accomplished, and thereafter at intervals not to exceed 27,000 hours' time in service.

For helicopters with main rotor hub lower plate with 27,000 or less hours' time in service on the effective date of this AD, compliance is required prior to the accumulation of 27,000 hours' time in service, unless already accomplished, and thereafter at intervals not to exceed 27,000 hours' time in service.

To prevent cracking of the main rotor hub lower plate, accomplish the following:

(a) Remove and replace the main rotor hub lower plate, P/N S6110-23009-6 or -8, with a new or an airworthy part of the same part number that has less than 27,000 hours' time in service.

(b) In accordance with FAR sections 21.197 and 21.199, the helicopter may be flown to a base where the modification may be performed.

(c) An alternate method of compliance or adjustment of the initial compliance time which provides an equivalent level of safety, may be approved by the Manager, Boston Aircraft Certification Office, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Donald F. Thompson, Boston Aircraft Certification Office, ANE-152, New England Region, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7113.

T86-23-51 BOEING VERTOL: Telegram issued November 14, 1986. Applies to Boeing Vertol Model 234 series helicopters certificated in any category, equipped with forward rotor transmission P/N 234D1200-2, -3, -4, -5, and -6 and/or aft rotor transmission P/N 234D2200-3, -4, or -5. Compliance required as indicated, unless already accomplished.

To prevent hazards in flight associated with wear and deterioration at the spiral bevel ring gear/sun gear bolted joint, accomplish the following before further flight:

(A) For both forward and aft transmissions, remove from further service all spiral bevel ring gears, Part Numbers 114D1244-5 or -6 and 114D2264-5 or -6; first stage sun gears, Part Numbers 234D1243-1 or -2 and 234D2250-1 or -2; and spacer shim, Part Numbers 114D2257-1 and -2; regardless of time in service.

(B) Install the following parts, which must be new:

(1) Spiral bevel ring gear, P/N 114D1244-5 or 114D2254-5;

(2) First stage sun gear, P/N 234D1243-1 or 234D2250-1;

(3) Spacer shim, P/N 114D2257-1; and

(4) Associated hardware as follows:

(i) Bolt, P/N BACB30MT6T12;

(ii) Washer, P/N BACW10BP6P; and

(iii) Nut, P/N BACN10TW6.

(C) An alternate method of compliance which provides an equivalent level of safety with this AD may be used when approved by the Manager, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

P. Perrotta or M. Schoenberger, Federal Aviation Administration, New York Aircraft Certification Office, Propulsion Branch, Telephone (516) 791-7421.

BOEING
Airworthiness Directive
Revision
VOLUME II

84-19-02 R2 BOEING: Amendment 39-4917 as amended by Amendment 39-5314 is further amended by Amendment 39-5466. Applies to those Boeing Model 747 series airplanes certificated in all categories, listed in Boeing Alert Service Bulletin 747-57A2229 dated August 10, 1984, or later FAA approved revisions, that have the reworked and interim production flap tracks in positions Number 1 through 8. Part numbers are listed in the Service Bulletin for the affected flap tracks.

NOTE: The inspections specified in this airworthiness directive (AD) are in addition to the inspections currently required by AD 83-21-02 (48 FR 48220).

To prevent failure of the trailing edge flap tracks, accomplish the following:

A. Within 300 landings after the effective date of this Amendment, unless accomplished within the last 300 landings, and at intervals thereafter not to exceed 300 landings, visually inspect the flap track lower flanges and vertical webs at the front end for cracks adjacent to bolts number 1 through 4 in accordance with Boeing Alert Service Bulletin 747-57A2229, Revision 2, dated June 6, 1986, or later FAA-approved revisions. Cracked parts must be replaced prior to further flight.

NOTE: These bolts pass through both the flap track and the front end of the fail-safe bar. Inspection of the flap track may be performed by borescope through access holes in the flap track fairing adjacent to the front of the track. The proper location and diameter for the access holes is provided in the service bulletin.

B. Initially, as specified in Table I, below, and at intervals thereafter not exceeding 1,000 landings, visually inspect the flap track webs for cracks extending from all fastener holes not previously inspected under paragraph A., above, in accordance with Boeing Service Bulletin 747-57-2146, Revision 3, or later FAA-approved revisions. Cracked parts must be replaced before further flight.

TABLE I

Number of landings since last inspection as of the effective date of this amendment.	Inspect prior to the accumulation of the following number of landings.
0 - 700	1,000 from last inspection
701 - 1,700	300 after effective date of amendment
1,701 - 2,000	2,000 from last inspection

C. For purposes of complying with this AD, subject to acceptance by the assigned FAA Maintenance Inspector, the number of landings may be determined by dividing each airplane's time in service by the operator's fleet average time from takeoff to landing for the airplane type.

D. On request by the operator, an FAA Principal Maintenance Inspector, subject to prior approval by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, may adjust the inspection times in this AD, if the request contains substantiating data to justify the increase for the operator.

E. Aircraft may be ferried to a maintenance base for repair in accordance with FAR 21.197 and 21.199.

F. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA Northwest Mountain Region.

All persons affected by this rule who have not already received the service bulletin from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Amendment 39-4917 superseded Airworthiness Directive (AD) 76-03-06, Amendment 39-2516 (40 FR 57811; December 12, 1975).

Amendment 39-4917 became effective September 27, 1984.

Amendment 39-5314 became effective June 23, 1986.

This amendment, 39-5466, becomes effective December 18, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-1923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

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Correction Sikorsky - Corrects AD 86-23-08

86-24-04 BRITISH AIRCRAFT CORPORATION: Amendment 39-5477. Applies to Model 1-11 200 and 400 series airplanes, modified in accordance with Air Cruisers Company STC SA840EA, as listed in Air Cruisers Company Alert Service Bulletin 203-25-A2, dated November 17, 1986, certificated in any category. Compliance required as indicated, unless previously accomplished.

To preclude the potential for jamming of the passenger or service doors, accomplish the following:

A. Within the next 10 hours time-in-service and at intervals not to exceed 120 hours time-in-service thereafter, perform the visual inspection of the container latch release cable, and replace, if necessary, in accordance with Air Cruisers Alert Service Bulletin 203-25-A2, dated November 17, 1986, or later FAA-approved revisions.

B. Prior to modification of any airplane in accordance with Air Cruisers Company STC SA840EA, visually inspect the container latch release cable and replace, if necessary, in accordance with Paragraph 3.0 of Air Cruisers Alert Service Bulletin 203-25-A2, dated November 17, 1986, or later FAA-approved revisions.

C. Inspections required by paragraph A., above, may be discontinued upon incorporation of a modification approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

D. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a location where the requirements of this AD may be accomplished.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer may obtain copies upon request to Air Cruisers Company, P.O. Box 180, Belmar, New Jersey 07719-0180. This information may be examined at FAA Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York.

This amendment becomes effective December 19, 1986.

FOR FURTHER INFORMATION CONTACT:

P. Cuneo or W. White, Systems Branch, FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6427.

86-24-05 ROLLS-ROYCE plc (formerly Rolls-Royce Limited): Amendment 39-5458. Applies to Rolls-Royce (R-R) RB211-22B and -524 series turbofan engines.

Compliance is required as indicated, unless already accomplished.

To prevent intermediate pressure compressor (IPC) rotor and turbine (IPT) disc uncontained failure, remove and inspect or retire from service IPC rotors and IPT disks which were oversped prior to August 13, 1982, using the laboratory inspection referred to in R-R Mandatory Service Bulletin (SB) RB.211-72-5887, Revision 2, dated August 23, 1985, or FAA approved equivalent as follows:

(a) For rotors and disks oversped in excess of 115 percent intermediate pressure rotor speed (N2) up to and including 120 percent N2:

(1) Inspect for cracks at the first engine shop visit after the effective date of this AD, after having accumulated 4,000 or more cycles since overspeed.

(2) Reinspect, thereafter, at intervals not to exceed 4,500 cycles in service.

(3) Remove and retire cracked parts from service, prior to further flight, and replace with serviceable parts.

(b) Remove and retire from service rotors and disks oversped in excess of 120 percent N2 at the first engine shop visit after the effective date of this AD, after having accumulated 3,000 or more cycles since overspeed.

(c) Rotors and disks which have experienced multiple overspeeds are subject to the more stringent requirements of the applicable paragraphs (a) or (b) above for each of the overspeed events.

(d) Rotors and disks that have experienced an overspeed that was read on a gauge calibrated only to 110 percent N2, and in the absence of substantiating data as to the magnitude of the overspeed, must be considered as having oversped beyond 120 percent N2 and are subject to the requirements of paragraph (b) above.

NOTE: Shop visit is defined as the input of an engine into a repair shop where the subsequent engine maintenance entails one or more of the following:

(a) Separation of a major engine flange (lettered or numbered) other than flanges mating with major sections of the nacelle or reverser. Separation of flanges purely for purposes of shipment, without subsequent internal maintenance, is not a "shop visit".

(b) Removal of a disk, hub, or spool.

(c) Removal of a main or angle gearbox.
(d) Removal of fuel nozzles.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

R-R Mandatory SB RB.211-72-5887, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received this document from the manufacturer may obtain copies upon request to Rolls-Royce plc, Technical Publications Department, P.O. Box 31, Derby DE2 8BJ, England. This document also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-31, Room 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective on December 20, 1986 .

FOR FURTHER INFORMATION CONTACT:

Chris Gavriel, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7084.

86-24-06 BRITISH AEROSPACE: Amendment 39-5472. Applies to Models HP-137 MK 1 and Jetstream 200 Series (all serial numbers), and Model Jetstream 3101 (S/N 601-633, 635-646 and 648-654 inclusive) airplanes certificated in any category.

Compliance: Required within 600 hours time-in-service (TIS) after the effective date of this AD, unless already accomplished.

To prevent unacceptable aileron control vibration and aileron jamming, accomplish the following:

(a) Inspect the special stud BAe P/N 13705E29 and nut BAe P/N A103-JT for tightness, visible thread length and punch marks, in accordance with Section 2. "Accomplishment Instructions" in BAe Mandatory S/B No. 27-JM-5257, dated June 6, 1986.

(1) If the special stud and nut are secure, and the special stud end protrudes 1-1/2 to 2 threads beyond the nut and all three punch marks are visible, no further action is necessary.

(2) If the special stud and nut are loose, or the special stud end does not protrude 1-1/2 to 2 threads beyond the nut, or all three punch marks are not visible, prior to further flight, remove aileron quadrant in accordance with Section 2. "Accomplishment Instructions," Paragraph B. "Removal/Installation" in BAe Mandatory S/B No. 27-JM-5257, dated June 6, 1986, and check the security of the nut P/N A103-JT securing the special stud P/N 13705E29 to the quadrant, and determine that peening of the stud is in accordance with the above BAe Service Bulletin.

(i) If security and locking are satisfactory, prior to further flight, reinstall aileron control quadrant using steps (13) to (20) inclusive of the above Service Bulletin, and no further action is required.

(ii) If the securing nut P/N A103-JT or special stud P/N 13705E29 is loose or the peening of the stud is not in accordance with the above BAe Service Bulletin, prior to further flight, remove and replace nut BAe P/N A103-JT with new nut BAe P/N RMTE 9868-6, install new stud BAe P/N 13705E91 and add split pin SP90-C7 to lock the nut on, according to the instructions in BAe Mandatory S/B 27-JM-5257, dated June 6, 1986.

(b) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, B-1000 Brussels, Belgium.

All persons affected by this directive may obtain copies of the document referred to herein upon request to British Aerospace PLC., Manager, Product Support Civil Aircraft

Division, Prestwick Airport, Ayrshire, KA9 2RW, Scotland; or British Aerospace, Inc., Librarian, Box 17414, Dulles International Airport, Washington, D.C. 20041; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 2, 1987.

FOR FURTHER INFORMATION CONTACT:

Mr. Ted Ebina, Aircraft Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, B-1000 Brussels, Belgium; Telephone (322) 513.38.30; or Mr. Harvey A. Chimerine, FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (316) 374-6932.

86-24-06 BRITISH AEROSPACE (BAe): Amendment 39-5476. Applies to Model 3101 Jetstream (Serial Numbers 601, 603, 604, 606 to 610, 614, 620, 622, 624 to 626, 628 to 632, 634 to 636, and 638 to 653 inclusive) airplanes certificated in any category.

Compliance: Required within the next 200 hours time-in-service after the effective date of this AD, unless already accomplished.

To ensure that adequate lighting supply to the standby artificial horizon and altitude alert controller indicator (if fitted) is maintained during loss of the main busbar supply, accomplish the following:

(a) Incorporate British Aerospace (BAe) modification JM7490 in accordance with the "Accomplishment Instructions" contained in BAe Alert Service Bulletin No. 24-A-JM7490 dated October 30, 1985, Revision No. 1 dated July 22, 1986, by changing the electrical supply source for the right upper center panel instrument lighting converter unit (1LH9) from the 28V d.c. main busbar to the 28V d.c. essential busbar.

(b) Aircraft may be flown in accordance with Federal Aviation Regulations 21.197 to a location where this AD can be accomplished.

(c) An equivalent means of compliance with this AD may be used if approved by the Manager, Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA c/o American Embassy, 1000 Brussels, Belgium.

All persons affected by this directive may obtain copies of the document referred to herein upon request to British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041; Telephone (703) 435-9100; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 7, 1987.

FOR FURTHER INFORMATION CONTACT:

Mr. Ted Ebina, Brussels Aircraft Certification Staff, AEU-100, Europe, Africa and Middle East Office, FAA, c/o American Embassy, 1000 Brussels, Belgium; Telephone 513.38.30; or Mr. H. Chimerine, FAA, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

86-24-10 BRITISH AEROSPACE, PLC, Aircraft Group, Civil Division-Prestwick: Amendment 39-5480. Applies to Jetstream Model 3101 (including 3100) (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Revise the airplane Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POH/AFM. Appendix 1 procedures supersede any other POH/AFM procedures which may be contradictory.

(b) The requirements of paragraph (a) of this AD are no longer required when the airplane is modified by the addition of an FAA approved automatic-relite ignition system.

NOTE: Automatic-relite ignition is a system which automatically energizes engine ignition without pilot action when engine RPM or torque decays below a specified level, and deenergizes engine ignition when RPM or torque exceeds the specified level. It is not synonymous with CONTINUOUS IGNITION.

(c) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent method of compliance with this AD, if used, must be approved by contacting the Manager, Brussels Certification Office, AEU-100, Europe, Africa, and Middle East Office, c/o American Embassy, 1000 Brussels, Belgium; Telephone 513.38.30, extension 2710/2711.

All persons affected by this AD may obtain copies of the document referred to herein upon request to GTEC, Post Office Box 5217, Phoenix, Arizona 85010; or British Aerospace, Engineering Department, Post Office Box 17414, Dulles International Airport, Washington, D.C. 20041; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

86-24-10

APPENDIX 1

Supplement to the POH/AFM
BAe Model 3101 Airplanes

"The ENGINE ICE PROTECTION switch shall be selected to ANTI-ICE/IGN during all operations in actual or potential icing conditions described herein:

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

(3) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(4) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to ANTI-ICE/IGN position. If the engine runs satisfactorily, switch the second ENGINE system to the ANTI-ICE/IGN position and check that the second engine continues to run satisfactorily.

CAUTION

Flight in actual or potential icing conditions will be limited by duty cycle of the ignition system. Ignition system time limits must be observed to prevent exceeding duty cycle times. Operator should verify these limits for his particular installation.

"Potential icing conditions in precipitation or visible meterological conditions:

(1) Begin when the OAT is +5°C (+41°F) or colder, or

(2) End when the OAT is +10°C (+50°F) or warmer."

The procedures and conditions described in this appendix supersede any other POH/AFM procedures and conditions which may be contradictory.

86-24-11 FAIRCHILD AIRCRAFT CORPORATION: Amendment 39-5481. Applies to Fairchild Aircraft Corporation Models SA 226-T, SA 226-T(B), SA 226-AT, and SA 226-TC (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Revise the airplane Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POH/AFM. Appendix 1 procedures supersede any other POH/AFM procedures which may be contradictory.

NOTE: Automatic-relite ignition is a system which automatically energizes engine ignition without pilot action when engine RPM or torque decays below a specified level, and de-energizes engine ignition when RM or torque exceeds the specified level. It is not synonymous with CONTINUOUS IGNITION.

(b) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent method of compliance with this AD, is used, must be approved by contacting the Manager, Airplane Certification Branch, ASW-150, Rotorcraft Certification Directorate, P.O. Box 1689, Fort Worth, Texas 76101; Telephone (817) 877-5150.

All persons affected by this directive may obtain copies of the document referred to herein upon request to GTEC, P.O. Box 5217, Phoenix, Arizona 85010; Telephone (602) 231-1000; or Fairchild Aircraft Corporation, P.O. Box 32486, San Antonio, Texas 78284; Telephone (512) 824-9421; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, Central Region, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

86-24-11

APPENDIX 1

Supplement to the POH/AFM
Fairchild Models SA 226-T, SA 226-T(B)
SA 226-AT, and SA 226-TC Airplanes

"The IGNITION MODE switches shall be selected to AUTO/CONT during all operations in actual or potential icing conditions described herein:

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

*(3) Before selecting ANTI-ICE, when ice has accumulated.

(4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to an ENGINE HEAT position. If the engine runs satisfactorily, switch the second ENGINE system to an ENGINE HEAT position and check that the second engine continues to run satisfactorily.

For the purpose of this supplement, the following definition applies:

Potential icing conditions in precipitation or visible moisture meteorological conditions:

(1) Begin when the OAT is +5°C (+41°F) or colder, and

(2) End when the OAT is +10°C (+50°F) or warmer."

The procedures and conditions described in this appendix supersede any other POH/AFM procedures and conditions which may be contradictory.

GENERAL ELECTRIC
Airworthiness Directive
Final Copy of Telegram
VOLUME II

86-10-51 GENERAL ELECTRIC: Amendment 39-5473. Applies to General Electric (GE) CT7-5A, -5A1, and -5A2 turbopropeller engines as installed in Saab-Fairchild SF340A aircraft.

Compliance is required prior to further flight, unless already accomplished.

To prevent power turbine (PT) overspeed resulting in an uncontained failure due to reaction of the fuel control to an erroneous PT speed signal during ground operation with the bottoming governor enabled, accomplish the following:

(A) Incorporate the following into the normal procedures section of the SF340A Aircraft Flight Manual (AFM). This may be accomplished by including a copy of this AD in the AFM.

(1) Advance the aircraft condition lever (CL) from the "START" position to the "T/M LOCKOUT" position and return to the desired propeller governing position immediately following each engine start.

(2) Verify that the bottoming governor has been disabled immediately after accomplishing (1) above as follows: Position the CL in the propeller governing range, then retard the power lever (PL) toward the "REVERSE" position. A decrease in propeller speed verifies that the bottoming governor has been disabled. If disabling of the bottoming governor by performing a torque motor (T/M) lockout cannot be verified, retard the CL to the "UNFEATHER" position. Do not operate further until T/M lockout is accomplished and verified. Thereafter, CL manipulation to satisfy requirements in ground or flight operations is permissible.

(B) Aircraft/engine operation with the bottoming governor disabled must be conducted in accordance with the SF340A AFM, Supplement 10, and Aircraft Operations Manual (AOM), Section 2.17, Condition 3.19. While operating in this mode, available reverse thrust will be reduced, as noted in the SF340A AFM, page 4-50.

NOTES: (1) GE Telex Number 1056-86 emphasizes pertinent information already contained in the SF340A AFM and/or AOM. The subject telex should be reviewed to highlight details and cautions pertaining to the bottoming governor and T/M lockout operation.

(2) Incorporation of manual cockpit switches in accordance with Saab Service Bulletins SF340-76-020, SF340-76-016, and SF340-76-021, along with aircraft operation in accordance with the AFM, Supplement 13, constitutes an equivalent means of compliance with this AD.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine

Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, New England Region, may adjust the compliance time specified in this AD.

Saab-Fairchild SF340A AFM, Supplement 10 and page 4-50, and AOM Section 2.17, Condition 3.19, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Saab-Scania AB, S-581 88, Linkoping, Sweden. These documents also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 86-ANE-21, Room 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective December 9, 1986, as to all persons except those persons to whom it was made immediately effective by telegraphic AD T86-10-51, issued May 13, 1986, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

Barbara G. Garian, Engine Certification Branch, ANE-141, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7086.

LOCKHEED CALIFORNIA
Airworthiness Directive
Telegram
VOLUME II

T86-23-52 LOCKHEED CALIFORNIA: Telegram issued November 20, 1986. Applies to Model L-1011-385 series airplanes, certificated in any category.

To prevent wing rear spar failure due to fatigue cracking, accomplish the following:

A. Within 50 flight hours after receipt of this AD, or prior to accumulation of 10,000 landings, whichever occurs later, and thereafter at intervals not to exceed 20 landings, inspect the wing rear spar in accordance with Lockheed California Company Alert Service Bulletin 093-57-A181, dated November 19, 1986, or later FAA approved revision.

B. If a crack is found, repair before further flight in a manner approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Mr. Augusto Coo, Aerospace Engineer, Airframe Branch, ANM-121L, FAA Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 514-6319.

SIKORSKY
Airworthiness Directive
Correction
VOLUME II

86-23-08 SIKORSKY AIRCRAFT: Priority letter issued November 17, 1986. Applies to Model S-61 series helicopters, certificated in any category, with main rotor hub lower plate, P/N S6110-23009-6 or -8, installed.

For helicopters with main rotor hub lower plates with more than 27,000 hours' time in service on the effective date of this AD, compliance is required prior to further flight, unless already accomplished, and thereafter at intervals not to exceed 27,000 hours' time in service.

For helicopters with main rotor hub lower plate with 27,000 or less hours' time in service on the effective date of this AD, compliance is required prior to the accumulation of 27,000 hours' time in service, unless already accomplished, and thereafter at intervals not to exceed 27,000 hours' time in service.

To prevent cracking of the main rotor hub lower plate, accomplish the following:

(a) Remove and replace the main rotor hub lower plate, P/N S6110-23009-6 or -8, with a new or an airworthy part of the same part number that has less than 27,000 hours' time in service.

(b) In accordance with FAR sections 21.197 and 21.199, the helicopter may be flown to a base where the modification may be performed.

(c) An alternate method of compliance or adjustment of the initial compliance time which provides an equivalent level of safety, may be approved by the Manager, Boston Aircraft Certification Office, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

This airworthiness directive becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Donald F. Thompson, Boston Aircraft Certification Office, ANE-152, New England Region, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7113.

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FAA AIRWORTHINESS DIRECTIVES
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86-25-01 COLLINS AVIONICS DIVISION/ROCKWELL INTERNATIONAL: Priority letter issued December 5, 1986. Applies to Model 51RV-4 VOR/ILS Navigation Receivers, Part Number 622-3255-XXX, Serial Number 5960 thru and including 7277, certificated to the applicable requirements of Technical Standard Orders C34c, C36c and C40a.

Compliance: Required as indicated in the body of this AD unless already accomplished.

To prevent deviation output signal oscillation that may cause undetected erroneous VOR and ILS localizer deviation display, flight director commands, and/or autopilot tracking, accomplish the following:

(a) For Model 51RV-4 navigation receivers not installed in an aircraft, prior to further use, modify the unit in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986.

(b) For Model 51RV-4 navigation receivers installed in an aircraft, accomplish the following:

(1) For installations approved for Category II, III, and/or autoland operations; within three calendar days after the effective date of this AD, fabricate and install on the instrument panel adjacent to the receiver control head and visible to the pilots the following placard using letters of a minimum 0.10 inch in height: "CATEGORY II/III/AUTOLAND" (as appropriate) "OPERATIONS PROHIBITED," and operate the aircraft accordingly. The placard required by this paragraph may be installed by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(2) Within three calendar days after the effective date of this AD, fabricate and install on the instrument panel adjacent to the receiver control head and visible to the pilots the following placard using letters of a minimum 0.10 inch in height: "AP/FD NOT TO BE COUPLED TO VOR/LOC," and operate the aircraft accordingly. The placard required by this paragraph may be installed by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(3) Within three calendar days after the effective date of this AD, unless already verified within the preceding two calendar days prior to the effective date of this AD; verify localizer centering using a calibrated reference signal or operational ILS localizer signal. This test may be accomplished by alignment of the aircraft on the centerline of a runway served by an ILS signal and observing the HSI (CDI) centering is within two needlewidths of center. Verify VOR centering by using a calibrated reference signal or approved VOR test location (VOT) and observing the HSI (CDI) centering is within ±2 1/2 degrees. These tests must be accomplished

with the receiver installed in the aircraft in its normal configuration. If either test produces unsatisfactory results, the navigation receiver must be removed from service. These tests may be accomplished by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(4) Within 30 calendar days after the effective date of this AD, modify the effected receiver in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986, or replace with a serviceable unit.

(5) Upon modification of the navigation receiver in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986, the requirements of paragraphs (b)(1), (b)(2), and (b)(3) of this AD no longer apply.

(c) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 under visual meteorological conditions to a location where this AD can be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Collins Avionics Division, 400 Collins Road NE, Cedar Rapids, Iowa 52498; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This airworthiness directive is effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Ralph W. Rissmiller, Jr., Aerospace Engineer, ACE-130W, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

86-25-02 BOEING: Amendment 39-5479. Applies to Boeing Model 767 airplanes identified in Boeing Alert Service Bulletin 767-27A0062, dated January 24, 1986, certificated in any category. To prevent the uncommanded deployment of spoiler panels in flight as a result of a rotary variable differential transducer (RVDT) separation, accomplish the following within six months after the effective date of this AD, unless already accomplished:

A. Modify the flight control forward control quadrants in accordance with Boeing Alert Service Bulletin 767-27A0062, dated January 24, 1986, or later FAA-approved revisions.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the replacements required by this AD.

All persons affected by this directive who have not already received the above specified service bulletin from the manufacturer may obtain copies upon request from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. It may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective January 12, 1987.

FOR FURTHER INFORMATION CONTACT.

Mr. Frank vanLeynseele, Systems and Equipment Branch, ANM-130S; telephone (206) 431-1948. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

86-25-03 THE DE HAVILLAND AIRCRAFT COMPANY OF CANADA, A DIVISION OF BOEING OF CANADA, LTD.: Amendment 39-5478. Applies to all Model DHC-7 and DHC-8 series airplanes, certificated in any category. Compliance is required as indicated, unless already accomplished.

To prevent the elevator trim-tab from becoming inoperable due to accumulated water freezing in the trim-tab jack-screw housing, accomplish the following, unless already accomplished.

A. For Model DHC-7 airplanes, within three months after the effective date of this AD, incorporate de Havilland Modification Number 7/2489 to provide a drain hole in the elevator trim-tab jack-screw housing in accordance with the "Accomplishment Instructions" contained in de Havilland Service Bulletin No. 7-27-76, dated January 17, 1986.

B. For Model DHC-8 airplanes, within three months after the effective date of this AD, incorporate de Havilland Modification Number 8/0415 to provide a drain hole in the elevator trim-tab jack-screw housing in accordance with the "Accomplishment Instructions" contained in de Havilland Service Bulletin No. 8-27-15, dated January 17, 1986.

C. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain upon request to de Havilland Aircraft Company of Canada, a Division of Boeing of Canada Ltd., Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or FAA, New England Region, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York.

This amendment becomes effective January 12, 1987.

FOR FURTHER INFORMATION CONTACT:

Mr. W. White, Systems Branch, ANE-173, New York Aircraft Certification Office, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6427.

86-25-04 FAIRCHILD AIRCRAFT CORPORATION: Amendment 39-5485. Applies to Model SA 227 (all serial numbers) airplanes certificated in any category.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine flameout when in or departing an icing environment, accomplish the following:

(a) Revise the airplane Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM) by inserting Appendix 1 of this AD in the "LIMITATIONS" section of the POH/AFM. Appendix 1 procedures supersede any other POH/AFM procedures which may be contradictory.

NOTE: Automatic-relite ignition is a system which automatically energizes engine ignition without pilot action when engine RPM or torque decays below a specified level, and de-energizes engine ignition when RPM or torque exceeds the specified level. It is not synonymous with CONTINUOUS IGNITION.

(b) The requirements of paragraph (a) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(c) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(d) An equivalent method of compliance with this AD, if used, must be approved by contacting the Manager, Airplane Certification Branch, ASW-150, Rotorcraft Certification Directorate, P.O. Box 1689, Fort Worth, Texas 76101; Telephone (817) 877-5150.

All persons affected by this directive may obtain copies of the document referred to herein upon request to GTEC, P.O. Box 5217, Phoenix, Arizona 85010; Telephone (602) 231-1000; or Fairchild Aircraft Corporation, P.O. Box 32486, San Antonio, Texas 78284; Telephone (512) 824-9421.

This amendment becomes effective on December 15, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., FAA, Central Region, Project Support Section Foreign, ACE-109, 601 East 12th Street, Kansas City, Missouri 64106; Telephone (816) 374-6932.

APPENDIX 1

Supplement to the POH/AFM
Fairchild Models SA 227-TT, SA 227-AT
and SA 227-AC Airplanes

The IGNITION MODE switches shall be selected to OVERRIDE or, for those aircraft which have the auto-relite system installed, CONTINUOUS or AUTO during all operations in actual or potential icing conditions described herein:

(1) During takeoff and climb out in actual or potential icing conditions.

*(2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).

*(3) Before selecting ANTI-ICE, when ice has accumulated.

(4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.

(5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

*Note: If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to an ENGINE HEAT position. If the engine runs satisfactorily, switch the second ENGINE system to an ENGINE HEAT position and check that the second engine continues to run satisfactorily.

For the purpose of this supplement, the following definition applies:

"Potential icing conditions in precipitation or visible moisture meteorological conditions:

(1) Begin when the OAT is +5°C (+41°F) or colder, and

(2) End when the OAT is +10°C (+50°F) or warmer."

The procedures and conditions described in this appendix supersede any other POH/AFM procedures and conditions which may be contradictory.

86-25-05 SIKORSKY AIRCRAFT: Amendment 39-5471. Applies to Model S-58A, B, C, D, E, F, G, H, J, BT, DT, ET, FT, HT, and JT, CH-34 series, HH-34 series, SH-34 series, UH-34 series, and VH-34 series helicopters certificated in any category and fitted with tail rotor intermediate gearbox input bevel pinions Part Number (P/N) S1635-64114-0 and output bevel gears P/N S1635-64115-0. (See Note 1 for exempt pinion and gear configurations.)

Compliance is required as indicated, unless already accomplished.

(a) To preclude failure of pinions or gears identified above, accomplish the following:

(1) For applicable pinions or gears that have attained 750 or less hours' time in service on the effective date of this AD, replace with a serviceable pinion or gear as required, prior to their accumulation of 1,000 hours' time in service.

(2) For pinions or gears that have attained more than 750 hours' time in service on the effective date of this AD, replace with a serviceable pinion or gear as required, within the next 250 hours' time in service.

(3) Operators who have not kept records of hours' time in service on individual intermediate gearbox bevel gears and bevel pinions shall substitute rotorcraft hours' time in service in lieu thereof.

NOTE 1. This AD is not applicable to helicopters fitted with tail rotor intermediate gears which utilize the following pinion and gear combinations:

(a) P/N 1635-64114-101 pinion and P/N S1635-64115-101 gear.

(b) P/N 1635-64114-102 pinion and P/N S1635-64115-102 gear.

(c) P/N 1635-64114-0 pinion and P/N S1635-64115-0 gear reworked in accordance with Sikorsky Service Bulletin 58B35-26. This rework includes remarking P/N S1635-64114-0 pinion and P/N S1635-64115-0 gear with TS-200-1 and TS-200-2, respectively.

NOTE 2. Refer to the Equalized Inspection and Maintenance Program Manual SA 4047-20, Revision 10, dated December 14, 1984, or later FAA-approved revision for retirement times assigned to new or modified bevel pinions and bevel gears for the Model S-58BT, DT, ET, FT, HT, and JT helicopters, and to the Maintenance Manual SA 4045-15 Section IV, revised December 14, 1984, or later FAA-approved revision for retirement times assigned to new or modified bevel pinions and gears for the Model S-58A, B, C, D, E, F, G, H, and J helicopters.

Upon request, an alternate method of compliance which provides an equivalent level of safety may be approved by the Manager, Boston Aircraft Certification Office, ANE-150, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Boston Aircraft Certification Office, ANE-150, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803 may adjust the compliance time specified in this AD.

This amendment becomes effective on January 5, 1987.

FOR FURTHER INFORMATION CONTACT:

Wayne E. Gaulzetti, FAA, Boston Aircraft Certification Office, ANE-153, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (617) 273-7102.

PRATT & WHITNEY
Airworthiness Directive
Telegram
VOLUME II

T86-25-51 PRATT & WHITNEY: Telegram issued December 12, 1986. The following telegraphic airworthiness directive (TAD) is issued and made applicable to PW JT9D-7R4D, D1, E, E1, E4, and H1 turbofan engines installed on B767, A310, A300 aircraft. This TAD is effective immediately upon receipt. Compliance is required as indicated, unless already accomplished.

To prevent low altitude surges which could result in an inflight shutdown on JT9D-7R4 series engines installed on B767, A310, and A300 aircraft, accomplish the following:

(A) Inspect inlet guide vane (IGV), stage 5, stage 6, and stage 7 compressor variable stator vane synchronizing ring runners within the next 10 calendar days in service from the effective date of this TAD in accordance with the applicable PW JT9D-7R4 engine manual, part number 785058, 785059, or 789328. Determine if the engine is configured with IGV, fifth, sixth, and seventh stage runners with a class 2 average or more.

NOTE: Definition of class 2 average is an arithmetic average of the IGV, fifth, sixth, and seventh stage runner classes.

(1) B767, A310, and A300 aircraft with at least one installed JT9D-7R4 series engine configured with IGV through stage 7 runners with a class 2 average or more may be returned to service provided the applicable following procedure is adhered to and incorporated into the normal procedure section of the aircraft flight manual (AFM).

a. Operate B767 aircraft in accordance with B767 Operations Bulletin Number 86-13, dated December 9, 1986, or FAA approved equivalent.

b. Operate A300 and A310 aircraft in accordance with Airbus Operations Engineering Bulletin numbers 50/1 and 86/1 respectively, or FAA approved equivalent.

(2) B767, A310, and A300 aircraft with both JT9D-7R4 series engines configured with IGV through stage 7 runners with less than a class 2 average accomplish the following prior to further flight:

Remove and replace runners with a suitable class to establish a class 2 average or greater, or accomplish PW SB 72-316 dated October 22, 1986, or FAA approved equivalent, on at least one installed engine. Aircraft may then be returned to service in accordance with paragraph (A)(1) above.

(B) Modify IGV through stage 7 runners in accordance with PW SB 72-316, dated October 22, 1986, or FAA approved equivalent, prior to December 31, 1987.

NOTE: For an individual operator whose fleet of B767, A310, or A300 aircraft have both engines on all aircraft configured with IGV through stage 7 runners with a class 2 average or greater, or in accordance with paragraph B above, the procedure specified in paragraph (A)(1)a or (A)(1)b may be discontinued and removed from the aircraft flight manual.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the TAD can be accomplished. Upon request, an equivalent means of compliance with the requirements of this TAD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator, through an FAA maintenance inspector, the Manager, Engine Certification Office, may adjust the compliance time specified in this TAD.

This TAD is effective immediately upon receipt.

Federal Register publication to follow.

FOR FURTHER INFORMATION CONTACT:

Diane Kirk, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

MCDONNELL DOUGLAS
Airworthiness Directive
Final Copy of Telegram
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86-19-51 MCDONNELL DOUGLAS: Amendment 39-5491. Applies to Model DC-9-80 series airplanes; fuselage numbers 1243 thru 1259, 1261 thru 1286, 1289 through 1291, 1293 through 1299, 1301 through 1304, and 1306; certificated in any category.

To prevent elevator jamming, which could result in the loss of adequate aircraft control, accomplish the following, unless previously accomplished:

A. Within 6 calendar days after the effective date of this AD:

1. Open access doors 3507 and 3608 to gain access to inspection area on the lower elevator surface, in accordance with DC-9-80 Maintenance Manual, Chapter 6-23-00.

2. Visually inspect the left and right elevator hydraulic boost cylinder attach rod ends and verify that the retaining nut and cotter pin are installed.

3. If rod end washer, nut, and/or cotter pin are missing, install new PLI-8-13.5 washer, 83494-820 nut, and MS24665-302 cotter pin, as necessary, as follows:

Tighten nut to a torque of 250-270 inch-pounds. If slot in nut and cotter pin hole in rod end align, install cotter pin. If slot in nut and cotter pin hole in rod end do not align, tighten nut a minimum amount required to obtain alignment (60 degrees maximum) to next slot and install cotter pin. Ring on PLI washer must be free to rotate after cotter pin installation. Cotter pin hole direction is machined on end of rod end for use as an installation aid.

B. Alternate means of compliance which provides an acceptable level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer may obtain copies upon request to McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Director Publications and Training, C1-L65 (54-60). These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California.

This amendment becomes effective January 2, 1987, as to all persons except those persons to whom it was made immediately effective by telegraphic AD T86-19-51, issued September 25, 1986.

FOR FURTHER INFORMATION CONTACT:
Mr. Michael N. Asahara, Aerospace Engineer, Airframe Branch, ANM-122L, FAA, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; telephone (213) 548-2824.

FAIRCHILD
Airworthiness Directive
Correction
VOLUME II

81-26-05 R1 FAIRCHILD AIRCRAFT CORP.: Amendment 39-4286 as amended by Amendment 39-5469. Applies to Models SA26T (S/N T26-2 through T26-99), and SA26-AT (S/N T26-100 through T26-999) airplanes certificated in any category.

Compliance: Required within the next 25 hours time in service after the effective date of this AD, and thereafter at intervals not to exceed 200 hours time-in-service since last compliance, unless already accomplished.

To prevent a failure at the lower forward wing station 99 attach joint, accomplish the following:

(a) In accordance with Fairchild Service Bulletin 26-57-40-015, issued January 18, 1972, as revised June 26, 1986:

(1) Remove the lower forward wing station 99 attach joint coverplate and wing attach bolt.

(2) Inspect the lower forward wing station 99 attaching fitting for deterioration and cracks and, prior to further flight, replace damaged parts with new parts of the same part numbers.

(3) Inspect the lower forward wing station 99 attach bolt for identifying part number, deterioration and cracks and, prior to rurther flight, replace any damaged bolt or bolt not identified as P/N MS20014-29 bolt with a new P/N MS20014-29 bolt.

(b) When the wing has been modified by (STC) SA1830N: "Installation of Wing Spar Reinforcement," the inspection intervals required by this AD may be increased from 200 hours time-in-service to 1,500 hours time-in-service or every 3 years since last compliance, whichever occurs first.

(c) The intervals between repetitive inspections required by this AD may be adjusted up to 10 percent of the specified interval to allow accomplishing these inspections concurrent with other scheduled maintenance of the airplane.

(d) A special flight permit may be issued in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent method of compliance with this AD may be used when approved by the Manager, Airplane Certification Branch, ASW-150, Southwest Regional Office, FAA, Fort Worth, Texas 76101; Telephone (817) 624-5150.

All persons affected by this AD may obtain copies of the documents referred to herein upon request to Fairchild Aircraft Corp., Post Office Box 32486, San Antonio, Texas 78284; and AviaDesign, Inc., Hangar 1, 173 Durley Avenue, Camarillo Airport, Camarillo, California 93010; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

81-26-05 R1

This AD revises AD 81-26-05, Amendment 39-4286, which became effective December 30, 1981.

This amendment, 39-5469, becomes effective on December 29, 1986.

FOR FURTHER INFORMATION CONTACT:

Michele M. Owsley, Airplane Certification Branch, Aircraft Certification Division, ASW-150, Federal Aviation Administration, Post Office Box 1689, Fort Worth, Texas 76101; Telephone (817) 624-5161.

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DEHAVILLAND
Airworthiness Directive
VOLUME II

86-26-01 DE HAVILLAND AIRCRAFT COMPANY OF CANADA, A DIVISION OF BOEING OF CANADA, LTD.: Amendment 39-5496. Applies to all Model DHC-8-101 and -102 series airplanes, certificated in any category, equipped with upper and lower fore rudder mounting brackets, P/N's 85530097-105 and -107. Compliance required as indicated, unless previously accomplished.

To prevent the failure of the fore rudder upper and lower mounting brackets and fin rear spar web accomplish the following:

A. Within the next 100 hours time-in-service after the effective date of this AD, and thereafter at intervals not to exceed 200 hours time-in-service, conduct a visual inspection of the upper and lower fore rudder mounting brackets in accordance with the Accomplishment Instructions of de Havilland Aircraft Company of Canada Service Bulletin No. 8-55-7, dated October 3, 1986.

1. If cracks are found in the mounting brackets, prior to further flight:

a. Conduct a visual inspection of the upper spar web for cracks in the vicinity of the mounting brackets in accordance with the Accomplishment Instructions of de Havilland Aircraft Company of Canada Service Bulletin No. 8-55-7, dated October 3, 1986.

b. Reinforce the fore rudder mounting brackets by installing de Havilland Modifications 8/0647 in accordance with the Accomplishment Instruction of de Havilland Aircraft Company of Canada Service Bulletin No. 8-55-7, dated October 3, 1986.

2. If, after accomplishing the visual inspection required by paragraph A.1.a., above, cracks are found in the spar web, prior to further flight, replace the cracked spar web with a new web in accordance with de Havilland Dash 8 Maintenance Manual (PSM 1-8-2), or accomplish an FAA-approved repair.

B. Within 500 hours time-in-service after the effective date of this AD, install de Havilland Modification 8/0647 in accordance with the Accomplishment Instructions of de Havilland Aircraft Company of Canada Service Bulletin No. 8-55-7, dated October 3, 1986. Prior to installation of Modification 8/0647, conduct the visual inspections required by paragraph A., above, and perform the repair required by paragraph A.2., above, if necessary.

C. Incorporation of de Havilland Modification 8/0647 constitutes terminating action for the repetitive inspection of paragraph A.., above.

D. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety may be used when approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer may obtain copies upon request to The de Havilland Aircraft Company of Canada, A Division of Boeing of Canada Ltd., Downsview, Ontario M3K 1Y5, Canada.

These documents may be examined at FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

This amendment becomes effective January 5, 1987.

FOR FURTHER INFORMATION CONTACT:

Vito A. Pulera, Aerospace Engineer, Airframe Branch, ANE-172, New York Aircraft Certification Office, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6220.

86-26-03 BOEING: Amendment 39-5500. Applies to Model 757 series airplanes equipped with Pratt and Whitney Aircraft PW2037 engines, as listed in Boeing Alert Service Bulletin 757-78A0006, dated August 7, 1986, certificated in any category.

To minimize the potential for uncommanded deployment of a thrust reverser in flight, accomplish the following within 30 days after the effective date of this AD, unless previously accomplished:

A. Inspect and, if necessary, install a restrictor check valve on the control port of both thrust reverser isolation valves in accordance with Boeing Alert Service Bulletin 757-78A0006, dated August 7, 1986, or later FAA-approved revision.

B. Modify the unlock and auto-restow proximity sensors' installation in accordance with Boeing Alert Service Bulletin 757-78A0006, dated August 7, 1986, or later FAA-approved revision.

C. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective January 12, 1987.

FOR FURTHER INFORMATION CONTACT:

Mr. Mike Pasion, Aerospace Engineer, Propulsion Branch, ANM-140S; telephone (206) 431-1974. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

COLLINS
Airworthiness Directive
Final Copy of Letter
VOLUME II

86-25-01 COLLINS AVIONICS DIVISION/ROCKWELL INTERNATIONAL: Amendment 39-5502. Applies to Model 51RV-4 VOR/ILS Navigation Receivers, Part Number 622-3255-XXX, Serial Number 5960 thru and including 7277, certificated to the applicable requirements of Technical Standard Orders C34c, C36c and C40a.

Compliance: Required as indicated in the body of this AD unless already accomplished.

To prevent deviation output signal oscillation that may cause undetected erroneous VOR and ILS localizer deviation display, flight director commands, and/or autopilot tracking, accomplish the following:

(a) For Model 51RV-4 navigation receivers not installed in an aircraft, prior to further use, modify the unit in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986.

(b) For Model 51RV-4 navigation receivers installed in an aircraft, accomplish the following:

(1) For installations approved for Category II, III, and/or autoland operations; within three calendar days after the effective date of this AD, fabricate and install on the instrument panel adjacent to the receiver control head and visible to the pilots the following placard using letters of a minimum 0.10 inch in height: "CATEGORY II/III/AUTOLAND" (as appropriate) "OPERATIONS PROHIBITED." and operate the aircraft accordingly. The placard required by this paragraph may be installed by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(2) Within three calendar days after the effective date of this AD, fabricate and install on the instrument panel adjacent to the receiver control head and visible to the pilots the following placard using letters of a minimum 0.10 inch in height: "AP/FD NOT TO BE COUPLED TO VOR/LOC." and operate the aircraft accordingly. The placard required by this paragraph may be installed by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(3) Within three calendar days after the effective date of this AD, unless already verified within the preceding two calendar days prior to the effective date of this AD; verify localizer centering using a calibrated reference signal or operational ILS localizer signal. This test may be accomplished by alignment of the aircraft on the centerline of a runway served by an ILS signal and observing the HSI (CDI) centering is within two needlewidths of center. Verify VOR

centering by using a calibrated reference signal or approved VOR test location (VOT) and observing the HSI (CDI) centering is within plus/minus 2 1/2 degrees. These tests must be accomplished with the receiver installed in the aircraft in its normal configuration. If either test produces unsatisfactory results, the navigation receiver must be removed from service. These tests may be accomplished by the holder of a pilot certificate issued by the FAA and valid for the aircraft in which the equipment is installed.

(4) Within 30 calendar days after the effective date of this AD, modify the effected receiver in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986, or replace with a serviceable unit.

(5) Upon modification of the navigation receiver in accordance with the instructions contained in Collins Alert Service Bulletin A22 dated November 25, 1986, the requirements of paragraphs (b)(1), (b)(2), and (b)(3) of this AD no longer apply.

(c) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 under visual meteorological conditions to a location where this AD can be accomplished.

(d) An equivalent means of compliance with this AD may be used if approved by the Manager, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Collins Avionics Division, 400 Collins Road NE, Cedar Rapids, Iowa 52498; or FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

This amendment becomes effective on January 6, 1987, to all persons except those to whom it has already been made effective by priority letter from the FAA dated December 5, 1986, and is identified as AD 86-25-01.

FOR FURTHER INFORMATION CONTACT:

Ralph W. Rissmiller, Jr., FAA, Aerospace Engineer, ACE-130W, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4419.

AEROSPATIALE
Airworthiness Directive
Telegram
VOLUME II

T86-25-52 AEROSPATIALE: Telegram issued December 19, 1986. Applies to all Model ATR-42 airplanes, certificated in any category. Compliance is required upon receipt of this telegram.

To minimize the potential hazards associated with in-flight icing conditions or the operation of ice removal systems, accomplish the following:

A. Incorporate the following into the Limitations Section of the Airplane Flight Manual. This may be accomplished by including a copy of this AD in the Airplane Flight Manual:

ALL FLIGHT INTO KNOWN OR FORECASTED ICING CONDITIONS IS PROHIBITED.

B. An alternate means of compliance or adjustment of compliance time, which provides an acceptable level of safety may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

Issued in Seattle, Washington, on December 19, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Arthur D. Scholes, Standardization Branch, ANM-113, Aircraft Certification Division, FAA, Northwest Mountain Region; Telephone (206) 431-1979.

GENERAL ELECTRIC
Airworthiness Directive
Revision
VOLUME II

85-25-56 R1 GENERAL ELECTRIC COMPANY: Telegram issued December 20, 1985, as amended by Amendment 39-5495. Applies to General Electric Company (GE) CF6-50 and -45 series turbofan engines.

Compliance is required as indicated, unless already accomplished.

To prevent failure of the left hand side seventh stage low pressure turbine (LPT) cooling air manifold tube, which could result in an LPT overtemperature condition and subsequent LPT stage 1 disk rupture, accomplish the following:

(a) For those engines not in compliance with the requirements of GE Service Bulletin (SB) 75-54, dated July 19, 1985, or paragraph 2.A. or 2.B. of GE SB 75-46, Revision 3, dated June 8, 1982, comply with paragraphs (1) then (2) below:

(1) Accomplish the requirements of paragraphs 2.A.1. and 2.A.2. of GE SB 75-55, dated September 13, 1985, concurrently with the requirements of paragraph 2.A. of GE SB 75-54, or FAA approved equivalents, within 10 flight cycles after the effective date of this AD.

(2) Accomplish the requirements of paragraph 2. of GE SB 75-55 or FAA approved equivalent, within 60 calendar days of complying with paragraph (1) above.

(b) For engines already in compliance with the requirements of GE SB 75-54 or paragraph 2.A. or 2.B. of GE SB 75-46, accomplish the requirements of paragraph 2. of GE SB 75-55 within 60 calendar days after the effective date of this AD.

(c) Replace cracked, broken or ruptured left hand side seventh stage LPT cooling air manifold tube and attachment hardware, found during accomplishment of paragraph (a) or (b) above, before further flight.

(d) Inspect the left hand side seventh stage LPT cooling air manifold tubes and attachment hardware in accordance with the requirements of paragraphs 2.A., 2.B., 2.C. and 2.D.(4)(b) of GE SB 75-58, dated April 14, 1986, or FAA approved equivalent, within the next 250 flight cycles after the effective date of this AD, and thereafter, at intervals not to exceed 250 flight cycles from the last inspection.

(e) Replace or tighten, in accordance with paragraph 2.D. of GE SB 75-58, left hand side seventh stage LPT cooling air system hardware found worn, loose, cracked or broken during accomplishment of paragraph (d) above, prior to further flight.

Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Engine Certification Office, may adjust the compliance time specified in this AD.

GE SB's 75-54, dated July 19, 1985; 75-46, Revision 3, dated June 8, 1982; 75-55, dated September 13, 1985; and 75-58, dated April 14, 1986, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies, upon request, from General Electric Company, 1 Neumann Way, Cincinnati, Ohio 45215. These documents also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 85-ANE-44, Room 311, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

Paragraphs (a), (b), and (c) of this amendment become effective January 5, 1987, as to all persons except those persons to whom paragraphs (a), (b), and (c) of this amendment were made immediately effective by TAD T85-25-56, issued December 20, 1985. Paragraphs (d) and (e) of this amendment become effective January 5, 1987, as to all persons.

FOR FURTHER INFORMATION CONTACT:

Jeff Blazey, Engine Certification Branch, ANE-142, Engine Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, telephone (617) 273-7090.

LOCKHEED
Airworthiness Directive
Revision
Telegram
VOLUME II

T86-23-52 R1 LOCKHEED CALIFORNIA: Telegram issued November 20, 1986, as amended by telegram issued December 18, 1986. Applies to Model L-1011-385 series airplanes certificated in any category.

To prevent wing rear spar failure due to fatigue cracking, accomplish the following:

A. Within 50 flight hours after the receipt of telegraphic AD T86-23-52 or prior to accumulation of 10,000 landings, whichever occurs later, unless already accomplished, conduct a visual inspection of the wing rear spar in accordance with Lockheed California Company Alert Service Bulletin 093-57-A181, dated November 19, 1986, or later FAA-approved revision. Repeat the visual inspection at intervals not to exceed 20 landings until the ultrasonic inspection required by paragraph B., below, is accomplished. After receipt of this amended AD, the visual inspections must be in accordance with Section 2, Accomplishment Instructions of Lockheed Service Bulletin 093-57-A181, Revision 3, dated December 11, 1986, or later FAA-approved revision.

B. Within 40 landings after receipt of this amended AD, or prior to accumulation of 6,000 landings, whichever occurs later, unless already accomplished within the last 260 landings, and thereafter at intervals not to exceed 300 landings, inspect the wing rear spar in accordance with the ultrasonic inspection procedures specified in Section 2, Accomplishment Instructions of Lockheed Service Bulletin 093-57-A181, Revision 3, dated December 11, 1986, or later FAA-approved revision. Ultrasonic inspection accomplished in accordance with Lockheed Service Bulletin 093-57-A181, Revision 1, dated November 20, 1986, or Revision 2, dated November 26, 1986, prior to receipt of this amended AD, satisfies the initial ultrasonic inspection requirements of this paragraph.

C. If a crack is found, repair before further flight in a manner approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

D. Alternate means of compliance which provide an equivalent level of safety may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region.

Issued in Seattle, Washington, on December 18, 1986.

FOR FURTHER INFORMATION CONTACT:

Mr. Augusto Coo, Aerospace Engineer, Airframe Branch, ANM-121L, FAA Northwest Mountain Region, Los Angeles Aircraft Certification Office, 4344 Donald Douglas Drive, Long Beach, California 90808; Telephone (213) 514-6319.

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AIRWORTHINESS DIRECTIVE SUMMARY SUBJECT INDEX

LARGE AIRCRAFT

JULY 1986

(Also see applicable engine, propeller and equipment notes)

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The indexes, which are published twice a year, are intended to be used as a guide only and should not be relied upon as conclusive evidence of AD applicability. Aircraft operators, inspectors, and persons performing maintenance are reminded of their responsibility under sections 39.3, 43.11, and 43.13 of the Federal Aviation Regulations, respectively, to assure compliance with all applicable AD's.

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		47-14-02		Landing gear motor attachment keys	3	1
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		74-09-05	Emergency exits	16	2
		74-10-13	Auxiliary hydraulic system	17	2
		74-18-10	Horizontal stabilizer and elevator	22	2
		74-21-03	Fire hazard	25	2
		75-05-01	Control cable pulleys	29	2
		75-24-04	Horizontal stabilizer	40	2
		77-05-03	Inboard nacelle droop	56	2
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		82-28-03	Nacelle strut diagonal braces	115	2
		83-02-09	Main cargo door skin insp.	120	2
		83-24-03	Tab control rod assys	133	2
		85-12-01	SSD inspection	159	2
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707-100 Series	4A21	59-08-02	Bendix compass system	8	1
		59-10-01	Cockpit lining trim strips	9	1
		59-14-01	Nose wheel well door tube	9	1
		59-16-05	Hydraulic pump	9	1
		59-20-04	Turbocompressor flanges	11	1
		59-21-04	Rudder feel springs	11	1
		60-02-01	Wing splice plates	12	1
		60-02-02	Aileron balance panel end seals	13	1
		60-02-03	Water injection system	13	1
		60-16-02	Fuel dump chute	17	1
		60-23-01	Engine start lever	18	1
		61-06-01	Main gear outer cylinder	19	1
		67-10-01	Upper wing skin	73	1
		74-10-09	Upper wing splice plate	17	2
		75-09-03	Cracks in wing center section	32	2
		78-03-04	Inspect for spar cracks	61	2
		79-24-04 R1	Horizontal stabilizer	86	2
707-100B Series	4A21	63-03-01	Oil filter pressure system	30	1
		74-10-09	Upper wing splice plate	17	2
		78-03-04	Inspect for spar cracks	61	2
		79-24-04 R1	Horizontal stabilizer	86	2
707-200 Series	4A21	60-11-01	Engine nose dome	17	1
		60-16-02	Fuel dump chute	17	1
		61-06-01	Main gear outer cylinder	19	1
		66-05-01	P&W JT3 engine B nuts	66	1

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		60-11-01		Engine nose dome	17	1
707-300 Series	4A26	60-16-02		Fuel dump chute	17	1
		61-06-01		Main gear outer cylinder	19	1
		66-06-01		P&W JT4 engine B nuts	66	1
		66-27-02		Elevator nose structure	70	1
		68-22-01		Upper wing skin cracks	89	1
		74-15-03		Upper wing skin	19	2
		75-03-01		Wing splice plate	27	2
		75-24-01		Wing skin splice plate	39	2
		77-02-01		Wing skin and spar cracks	51	2
		77-16-11		Horizontal stabilizers	57	2
		78-01-04		Rear spar upper chord	60	2
		79-01-06		Stabilizers	69	2
		79-10-16		Horizontal stabilizer modification	78	2
		79-19-01	R2	Splice stringers inspection	83	2
		63-03-01		Oil filter pressure system	30	1
707-300B Series	4A26	64-15-01		Fillet flap drive screw support assy	67	1
		65-21-02		Forward reverser switch bracket	64	1
		66-22-01		Antiskid system	68	1
		66-27-01		Aileron center hinge fitting	70	1
		66-27-02		Elevator nose structure	70	1
		68-22-01		Upper wing skin cracks	89	1
		69-11-03		Rudder power control rod end	92	1
		74-15-03		Upper wing skin	19	2
		75-03-01		Wing splice plate	27	2
		75-24-01		Wing skin splice plate	39	2
		77-02-01		Wing skin and spar cracks	51	2
		77-16-11		Horizontal stabilizers	57	2
		78-01-04		Rear spar upper chord	60	2
		79-01-06		Stabilizers	69	2
		79-10-16		Horizontal stabilizer modification	78	2
		79-19-01	R2	Splice stringers inspection	83	2
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707-300C Series	4A26	65-21-02		Forward reverser switch bracket	64	1
		66-22-01		Antiskid system	68	1
		66-27-01		Aileron center hinge fitting	70	1
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		68-22-01		Upper wing skin cracks	89	1
		69-11-03		Rudder power control rod end	92	1
		74-15-03		Upper wing skin	19	2
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		75-24-01		Wing skin splice plate	39	2
		77-02-01		Wing skin and spar cracks	51	2
		77-16-11		Horizontal stabilizers	57	2
		78-01-04		Rear spar upper chord	60	2
		79-01-06		Stabilizers	69	2
		79-10-16		Horizontal stabilizer modification	78	2
		79-19-01	R2	Splice stringers inspection	83	2
		61-06-01		Main gear outer cylinder	19	1
707-400 Series	4A26	66-27-02		Elevator nose structure	70	1
		68-22-01		Upper wing skin cracks	89	1
		74-15-03		Upper wing skin	19	2
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		75-24-01		Wing skin splice plate	39	2
		77-02-01		Wing skin and spar cracks	51	2
		77-16-11		Horizontal stabilizers	57	2
		78-01-04		Rear spar upper chord	60	2
		79-01-06		Stabilizers	69	2
		79-10-16		Horizontal stabilizer modification	78	2
		79-19-01	R2	Splice stringers inspection	83	2
		60-06-01		Nose gear cylinder	15	1
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		61-19-01		Fuel dump safety switch	22	1
		61-24-01		P&W engine oil screen	23	1
		62-02-02		Engine compressor rotor disc	23	1
		62-02-03		Secondary fuel seal	24	1
		62-08-04		Magnesium stabilizer skin	24	1
		62-08-05		J6 electrical panel	25	1
		62-09-01		Control cable pressure seals	25	1
		62-12-01		Toilet flushing motors	26	1
		62-12-02		Cabin cove light	27	1
		62-13-02		Autopilot trim servo wire bundle	27	1
		62-16-01		Razor outlet deactivation	27	1
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		63-02-01		Anticollision light fairings	30	1
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		64-02-02		Limited rubber crossfeed	38	1
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		64-03-02		Spar chord members	39	1
		64-05-01		Fuel surge tanks	41	1
		64-06-02		Compressor rotor disc spacer assys	41	1
		64-07-01		3% electrical distribution panel	42	1
		64-09-01		Position transmitters	43	1
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		64-10-01		Stabilizer attach fittings	44	1
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		64-11-01		Wing spar chords	45	1
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		64-15-02		Wing skin cracks	48	1
		64-16-01		Main landing gear chamber bolts	49	1
		64-16-02		Nacelle strut upper support fittings ...	50	1
		64-17-01		Fuel dump chute switches	51	1
		64-19-01		Air conditioning access doors	52	1
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		64-22-02		Cabin cove lights	55	1
		64-23-01		Rudder control link arm assembly	55	1
		64-25-01		Thrust reverser sleeve drain holes	56	1
		65-01-02		Speed brake actuation	57	1
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		65-06-03		Aft elevator control quadrant	58	1
		65-07-01		Cabin sidewall fire protection	59	1
		65-13-01		Horizontal stabilizer trim system	60	1
		65-14-02		Nacelle strut attachment bolt	61	1
		65-14-03		Nose gear leak rod bolts	61	1
		65-15-02		Flap carriages	62	1
		65-19-03		Fuselage frames	63	1
		65-24-02		Thrust reverser light switch	64	1
		66-01-01		Wing upper surface skin	65	1
		66-04-02		Pt. 2 probes	66	1
		66-07-01		Main landing gear rear axles	67	1
		66-13-02		Emergency exit lights	68	1
		66-27-03		Tail navigation light wiring	71	1
		67-10-01		Upper wing skin	73	1
		67-18-02		Galley supply boxes	76	1
		67-23-02		Suppression system	78	1
		68-17-08		Lower wing skin cracks	84	1
		68-18-03		Upper center section cracks	86	1
		68-23-03		Fin body terminal fittings	90	1
		69-03-02		Rudder pedal displacement	91	1
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		70-10-05		Emergency extension crank arm	103	1
		70-16-04		Cabin cove light ballast	107	1
		70-25-07		Rudder power control unit	110	1
		71-03-02		Elevator aft quadrant	1	2
		71-09-02		Rudder hydraulic support fitting	2	2
		71-25-06		Water at station 360 bulkhead	6	2
		72-10-08		Single attach point escape slide	8	2
		74-09-05		Emergency exits	16	2
		74-10-13		Auxiliary hydraulic system	17	2
		74-18-10		Horizontal stabilizer and elevator	22	2
		74-21-03		Fire hazard	25	2
		73-05-01		Control cable pulleys	29	2
		73-09-03		Cracks in wing center section	32	2
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		65-21-02		Forward reverser switch bracket	64	1
		66-01-01		Wing upper surface skin	65	1
		66-07-01		Main landing gear rear axles	67	1
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		79-24-06	R1	Horizontal stabilizer	86	2

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		64-26-01	Deactivation of the autopilot	56	1
		65-03-02	Horizontal stabilizer drain holes	57	1
		65-17-01	Thrust reverser actuator piston	63	1
		66-04-02	Flap drive coupling sleeve	67	1
		66-22-02	Pneumatic brake system	69	1
		66-23-01	Fuel line B nuts	69	1
		66-24-01	Trim system brake	70	1
		66-29-01	Engine cowl panel latch	72	1
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		67-07-01	Sperry SP-50 autopilot	73	1
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		68-10-02	Heater blankets	80	1
		68-10-05	Deflector doors	80	1
		68-14-02	Gear downlock actuating system	81	1
		68-15-01	Cracks in horizontal stabilizer	81	1
		68-15-04	Damage to wire bundles	83	1
		68-17-01	Cracks in bearing boss	83	1
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		72-12-01	Main gear downlock shaft	8	2
		72-25-03	Main gear trunnion support beam	9	2
		73-06-01	Leading edge slat actuators	10	2
		73-09-04	Entry door hinge	10	2
		73-26-06	Corrosion of torsion shafts	13	2
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		74-18-09	Landing gear actuators	20	2
		74-21-01	Main landing gear wheel well	24	2
		74-21-03	Fire hazard	25	2
		74-23-03	Air conditioning packs	26	2
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		83-02-09		Main cargo doorskin inspection	120	2
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		75-05-10		Slide latch cable	31	2
		76-17-07		Static port system	47	2
		76-18-11		Aft cargo door	48	2
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		79-09-01		Elec. leads/hyd. lines chafing	77	2
		81-02-09		Airstair emergency system	98	2
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		83-02-09		Main cargo doorskin inspection	120	2
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		74-24-06		Nose landing gear	27	2
		75-05-10		Slide latch cable	31	2
		77-02-02		Static port fittings	53	2
		80-14-04		Wire bundles in air cond.	94	2
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		85-24-02		Ramair plenum chamber insp.	172	2
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		69-17-01		Auxiliary power unit	95	1
		69-20-06		Circuit cr rloads	98	1
		70-04-03		Placard APU fire extinguisher	100	1
		70-06-03		Takeoff warning system	101	1
		70-09-01		Operation of battery switch	102	1
		70-18-06		Emergency hatch handle	108	1
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		74-01-01		Wing front spar upper chord	14	2
		74-09-05		Emergency exits	16	2
		74-19-05		Flap track support fitting	22	2
		74-20-02		Pitot-static tubing	24	2
		74-21-03		Fire hazard	25	2
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		76-11-05		Control system vibration	44	2
		76-22-08		Pump motor installation	49	2
		76-26-02		Cargo doors	50	2
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		81-13-08		Fuselage skins	100	2
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		84-20-03	R1	Aft pressure bulkhead insp. Rev. BW 86-01		2
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		85-22-02		BBL rib upper chord insp.	169	2
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		71-25-02		Bolts in flap beam attach brackets	8	2
		72-06-01		Flap section pickup assembly	11	2
		75-16-07		Ring nuts	21	2
		75-16-12		Rear fuselage tail cone	21	2
		75-16-14		Static inverter failure	22	2
		75-16-15		Handbrake control valves	23	2
		75-17-05	R1	Nose landing gear	25	2
		75-23-05		Aileron trim tab	26	2
		75-26-11		Antenna cable	27	2
		76-04-06		Horizontal stabilizer	30	2
		76-24-06	R2	Oxygen system	34	2
		77-13-13		Loss of rudder feel capability	37	2
		77-14-05		APU oil contents	38	2
		77-14-11		Flap structure	39	2
		77-14-12		Passenger oxygen system	41	2
		77-15-15		Cabin pressure	44	2
		77-17-10	R2	Secondary drive shaft	45	2
		78-05-09		Fuel boost pump elect. connectors	48	2
		78-08-06		Rear passenger door	50	2

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		81-17-06		Ground charging system	65	2
		82-01-02	R1	Doors inner operating handles	67	2
		83-05-05		Windshield glazing frame	73	2
		83-10-02		Windshields	74	2
		83-15-08		Fuselage inspection	74	2
		83-19-05		Rear spar frame inspection	75	2
		83-20-02		Forward and aft spigots	76	2
		83-24-04		Nose landing gear	79	2
		83-24-07		Aileron stub fairing mod	80	2
		83-24-10	1	Cabin depressurization	80	2
		83-26-02		Service door warning system	82	2
		85-12-05		Reinforcing plate inspection	90	2
		86-04-07		BAC SB 57-A-PM5896 & 32-A-PM5872 ... SN 86-04		2
		86-11-02		Overheat protection circuits . SN 86-11		2
1-11 400 Series	ASEB	66-26-03		Nose landing gear lock jack assy	34	1
		67-01-01		Flap carriage links	35	1
		67-06-02		Engine stub access panels	37	1
		67-09-03		Flap jack screw and carriage assy	38	1
		67-18-04		Fin top actuator fitting	39	1
		67-15-01		Stabilizer link pin	40	1
		67-19-03		Honeycomb delamination	40	1
		67-22-04		Secondary flap transmission shafts	41	1
		67-22-05		Unserviceable drop-out oxygen mask	41	1
		67-23-03		Reverse thrust plunger unit rods	42	1
		67-24-03		Rudder pedal lock unit housing	42	1
		67-25-01	R1	Main undercarriage down lock jacks	43	1
		67-25-02	R3	Flap drive screw jacks	1	2
		67-27-03		Flap carriage links	46	1
		67-28-02		Secondary flap transmission system	48	1
		67-30-02		Lower sidestay pin retaining bolt	49	1
		67-31-01		Flap secondary transmission shaft	50	1
		67-31-03		Reversal of rudder feel function	51	1
		67-32-01		Fuel pump movement and leakage	51	1
		68-01-01		Airframe plenum of aux. power unit	52	1
		68-02-02		Oleo relay failure	54	1
		68-06-04		Static inverter panel	56	1
		68-14-03	R1	Erratic rudder & elevator feel	1	2
		68-19-06		Failure, power unit fuel line	59	1
		69-03-03		Aileron control jamming	62	1
		69-07-01		Flap pick up and link assembly	62	1
		69-08-05		Elevator spring pot	63	1
		69-14-03		Windshield heating circuit	64	1
		69-22-01		Stairway hinge bolt	66	1
		70-05-01		Flap signalling system	70	1
		70-05-03		Main landing gear door system	71	1
		70-13-01		Razor socket supply transformer	73	1
		70-13-09		APU starter fuse	73	1
		70-15-10		Cold air unit compressor	74	1
		70-17-01		Static plate heaters	75	1
		71-06-09	R1	Auxiliary power unit duct valve	3	2
		71-15-02		Flight deck roof panel	4	2
		71-16-05		Voltage sensing unit	5	2
		71-20-01		Flap drive shaft bearing assy	6	2
		71-20-07		Landing gear selector lever switch	7	2
		71-25-02		Bolts in flap beam attach brackets	8	2
		72-06-01		Flap section pickup assembly	11	2
		75-16-07		Ring nuts	21	2
		75-16-12		Rear fuselage tail cone	21	2
		75-16-14		Static inverter failure	22	2
		75-16-15		Handbrake control valves	23	2
		75-23-05		Aileron trim tab	26	2
		75-26-11		Antenna cable	27	2
		76-04-06		Horizontal stabilizer	30	2
		76-24-06	R2	Oxygen system	34	2
		77-13-13		Loss of rudder feel capability	37	2
		77-13-18		Nose landing gear system	38	2
		77-14-05		APU oil contents	38	2
		77-14-11		Flap structure	39	2
		77-14-12		Passenger oxygen system	41	2
		77-15-15		Cabin pressure	44	2
		77-17-10	R2	Secondary drive shaft	45	2
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		83-05-05		Windshield glazing frame	73	2
		83-10-02		Windshields	74	2
		83-15-08		Fuselage inspection	74	2
		83-19-05		Rear spar frame inspection	75	2
		83-20-02		Forward and aft spigots	76	2

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		83-24-10	R1	Cabin depressurization	80	2
		83-28-02		Service door warning system	82	2
		85-12-05		Reinforcing plate inspection	90	2
		85-18-03		Ground spoiler mech. locks	91	2
		86-04-07		RAC SB 57-A-PM5896 & 32-A-PM5872 BW 86-04		2
		86-11-02		Overheat protection circuits . BW 86-11		2
(Vickers-Armstrong, Ltd.) Viscount 700, 800 Series	A-814	84-07-03	R1	Nose landing gear BW 86-06		2
		84-19-07		Hydraulic system, doors, rudder	85	2
		85-12-06		Wheel brake unit insp.	90	2
		85-14-08		Alternators	91	2
		86-02-05		Hydraulic system cut-out valve BW 86-02		2
Viscount 744	A-814	57-08-06		Horizontal stabilizer	1	1
		57-14-03		Flap torque rework	1	1
		57-20-04		Landing gear retraction jack	2	1
		57-26-02		Flap idler sprocket	2	1
		58-05-02		Modifications and inspections	2	1
		58-05-03		Modifications and inspections	3	1
		58-07-03		Inner nacelle bolts	4	1
		58-07-06		Wing root terminal connections	4	1
		58-08-06		Landing gear ram foot fittings	5	1
		58-09-03		Oil pressure warning	5	1
		58-10-06		Flap switch lever	6	1
		58-10-07		Aileron control lock clearance	6	1
		58-10-08		Landing gear nut replacement	6	1
		58-10-09		Oleo cylinder cracks	6	1
		58-18-03		Flap chain tensioner locking	7	1
		61-08-03		Nacelle bolts	14	1
		62-09-05		Landing gear tube end fittings	15	1
		62-14-06		Landing gear fork ends	16	1
		62-22-03		Wing flap attachment	17	1
		63-27-05		Fuselage leading edge	20	1
		65-18-03		Engine mount assembly	24	1
		65-19-05		Main landing gear top yokes	24	1
		65-20-04		Fuselage component limits	25	1
		65-21-06		Pyrene fire extinguishers	27	1
		65-22-04		Main landing gear attachment bolt	28	1
		65-23-01		Wing spar attachment joint lugs	28	1
		66-22-06		Access panels and cowls	34	1
		66-29-04		Elevator hinge beam shroud	34	1
		67-02-05		Control rod guide beams	36	1
		67-03-08		Nose gear	36	1
		67-25-07		Heat detectors	45	1
		67-32-05		Nose wheel steering system hoses	51	1
		68-01-02		Aileron control system	54	1
		68-03-04		Nose landing gear	55	1
		68-15-02		Cracks in elevator	57	1
		68-15-03		Horiz. stabilizer top fitting	58	1
		68-25-04		Nose steering relief valve	59	1
		68-26-05		Engine nacelle cross beam	60	1
		69-01-02		Alternator housing liner	61	1
		69-03-01		Wing lower spar booms	61	1
		69-08-03		Power plant fire extinguishant	63	1
		69-09-02		Aileron control system	63	1
		69-10-02		Fire protection cabin compressor	64	1
		69-15-08		Outer wing spar	65	1
		69-19-02		Cable lugs	65	1
		70-02-04		Electrical generation system	68	1
		70-02-08		Fuselage leading edge frame	68	1
		70-03-02		Fuselage pressure shell	69	1
		70-03-03		Fuselage pressure shell	69	1
		70-04-05		Automatic feathering system	70	1
		70-05-02		Engine breather pipes	71	1
		70-08-04		Cabin blower drive quill	73	1
		71-01-02		Flap drive motor assy	2	2
		71-08-04		Undervoltage sensing unit	4	2
		71-19-04		Placard on cabin pressurization	5	2
		72-14-03		Failures of flap chains	13	2
		72-18-09		Control rods and electrical systems	14	2
		73-12-07		Nacelle tubes and end fittings	16	2
		75-13-06		Horizontal stabilizer	20	2
		75-17-01		Aileron control in-flight	24	2
		75-17-02		Cable assemblies	24	2
		75-26-12		Torque shaft assemblies	28	2
		75-27-02		Propeller feathering	30	2
		76-19-01		Elevator control mechanism	34	2
		77-15-07		Aileron control rods	43	2
		78-23-13		MLG shock absorber struts	53	2
		80-21-51		Elevator control system	59	2
Viscount 745	A-814	57-08-06		Horizontal stabilizer	1	1

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		57-26-02	Flap idler sprocket	2	1
		58-05-02	Modifications and inspections	2	1
		58-05-03	Modifications and inspections	3	1
		58-07-03	Inner nacelle bolts	4	1
		58-07-06	Wing root terminal connections	4	1
		58-08-06	Landing gear ram foot fittings	5	1
		58-09-03	Oil pressure warning	5	1
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		58-10-07	Aileron control lock clearance	6	1
		58-10-08	Landing gear nut replacement	6	1
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		75-13-04	Horizontal stabilizer	20	2
		75-17-02	Cable assemblies	24	2
		75-26-12	Torque shaft assemblies	28	2
Viscount 745D	A-814	53-22-04	Tailplane main spar	1	1
		54-26-04	Nacelle side brackets	1	1
		57-14-03	Flap torque rework	1	1
		57-20-04	Landing gear retraction jack	2	1
		57-26-02	Flap idler sprocket	2	1
		58-05-02	Modifications and inspections	2	1
		58-05-03	Modifications and inspections	3	1
		58-07-03	Inner nacelle bolts	4	1
		58-07-06	Wing root terminal connections	4	1
		58-08-06	Landing gear ram foot fittings	5	1
		58-09-03	Oil pressure warning	5	1
		58-10-06	Flap switch lever	6	1
		58-10-07	Aileron control lock clearance	6	1
		58-10-08	Landing gear nut replacement	6	1
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		58-24-04	Stall warning system switch	7	1
		59-05-07	Automatic pilot control relay	8	1
		59-06-07	Cockpit floor cover plates	8	1
		59-10-10	Flap tie rod ends	8	1
		59-11-04	Flap-aileron clearance	9	1
		59-12-03	Graviner fire extinguisher	9	1
		60-03-09	Landing gear uplock	10	1
		60-07-07	Wing bolts	11	1
		60-09-04	Main landing gear bearing channels	11	1
		60-11-10	Tab nuisance bracket	12	1
		60-18-01	Nose gear retraction jack	12	1
		60-18-02	Brake accumulator	13	1
		61-03-06	Landing gear ram foot fitting	13	1
		61-08-03	Nacelle bolts	14	1
		62-09-05	Landing gear tube end fittings	15	1
		62-12-06	Landing gear uplock	15	1
		62-18-06	Landing gear fork ends	16	1
		62-22-03	Wing flap attachment	17	1
		63-27-05	Fuselage leading edge	20	1
		64-02-07	Inner wing end rib structure	21	1
		65-18-03	Engine mount assembly	24	1
		65-19-05	Main landing gear top yokes	24	1
		65-20-04	Fuselage component limits	25	1
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		66-22-06	Access panels and cowls	34	1
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		67-03-08	Nose gear	36	1
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		67-32-05	Nose wheel steering system hoses	51	1
		68-01-02	Aileron control system	54	1
		68-03-04	Nose landing gear	55	1
		68-15-02	Cracks in elevator	57	1
		68-15-03	Horiz. stabiliser top fitting	58	1
		68-25-04	Nose steering relief valve	59	1
		68-26-05	Engine nacelle cross beam	60	1
		69-01-02	Alternator housing liner	61	1
		69-08-03	Power plant fire extinguishant	63	1
		69-09-02	Aileron control flap system	63	1
		69-10-02	Fire protection cabin compressor	64	1
		69-18-02	Lower wing spar boom	64	1
		69-15-08	Outer wing spar	65	1
		69-19-02	Cable lugs	65	1
		70-02-04	Electrical generation system	68	1
		70-02-08	Fuselage leading edge frame	68	1
		70-03-02	Fuselage pressure shell	69	1
		70-03-03	Fuselage pressure shell	69	1
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		70-05-02	Engine breather pipes	71	1

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		71-19-04	Placard on cabin pressurization	5	2
		72-14-03	Failures of flap chains	13	2
		72-18-09	Control rods and electrical systems	14	2
		73-12-07	Nacelle tubes and end fittings	16	2
		75-13-06	Horizontal stabilizer	20	2
		75-17-01	Aileron control in-flight	24	2
		75-17-02	Cable assemblies	24	2
		75-26-12	Torque shaft assemblies	28	2
		75-27-02	Propeller feathering	30	2
		76-19-01	Elevator control mechanism	34	2
		77-15-07	Aileron control rods	43	2
		78-23-13	MLG shock absorber struts	53	2
		80-21-51	Elevator control system	59	2
Viscount 810 Series	A-814	58-24-06	Stall warning system switch	7	1
		59-06-06	Bearing channel reinforcement	8	1
		59-12-03	Graviner fire extinguisher	9	1
		59-22-02	Flap-aileron clearance	9	1
		59-24-01	Propeller warning lights	10	1
		60-03-09	Landing gear uplock	11	1
		60-09-04	Main landing gear bearing channels	12	1
		60-11-10	Tab nuisance bracket	12	1
		60-18-01	Nose gear retraction jack	13	1
		60-18-02	Brake accumulator	15	1
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		63-23-03	Flap beams	19	1
		63-26-05	Flap beams	20	1
		63-27-05	Fuselage leading edge	21	1
		64-02-07	Inner wing end rib structure	23	1
		64-20-03	Rib structure	23	1
		65-14-07	Locking mechanism-front & rear doors	24	1
		65-18-03	Engine mount assembly	25	1
		65-20-04	Fuselage component limits	27	1
		65-21-06	Pyrene fire extinguishers	28	1
		65-22-04	Main landing gear attachment bolt	28	1
		65-23-01	Wing spar attachment joint lugs	32	1
		65-28-06	Emergency inverter overloading	34	1
		66-29-04	Elevator hinge beam shroud	36	1
		67-03-08	Nose gear	45	1
		67-25-07	Heat detectors	51	1
		67-32-05	Nose wheel steering system hoses	54	1
		68-01-02	Aileron control system	55	1
		68-03-04	Nose landing gear	57	1
		68-15-02	Cracks in elevator	58	1
		68-19-03	Cracks, forward landing flap	59	1
		68-25-04	Nose steering relief valve	60	1
		68-26-05	Engine nacelle cross beam	61	1
		69-01-02	Alternator housing liner	63	1
		69-08-03	Power plant fire extinguishant	63	1
		69-09-02	Aileron control system	64	1
		69-10-02	Fire protection cabin compressor outlet.	64	1
		69-14-02	Lower wing spar boom	65	1
		69-15-08	Outerwing spar	68	1
		70-02-04	Electrical generation system	68	1
		70-02-08	Fuselage leading edge frame	69	1
		70-03-02	Fuselage pressure shell	69	1
		70-03-03	Fuselage pressure shell	71	1
		70-05-02	Engine breather pipes	73	1
		70-08-04	Cabin blower drive quill	2	2
		71-01-02	Flap drive motor assy	4	2
		71-08-04	Undervoltage sensing unit	8	2
		71-20-08	Placard on cabin pressurization	13	2
		72-14-03	Failure of flap chains	14	2
		72-18-09	Control rods and electrical systems	15	2
		73-12-04	Airsteps hinged fairing link	16	2
		73-12-07	Nacelle tubes and end fittings	17	2
		73-12-12	Power plant fire extinguisher	24	2
		75-17-01	Aileron control in-flight	24	2
		75-17-02	Cable assemblies	28	2
		75-26-12	Torque shaft assemblies	30	2
		75-27-02	Propeller feathering	34	2
		76-19-01	Elevator control mechanism	43	2
		77-15-07	Aileron control rods	53	2
		78-23-13	MLG shock absorber struts	59	2
		80-21-51	Elevator control system		
CANADAIR LTD. CL-44 Series	1A20	68-10-08	Main landing gear actuator attach	10	1
		69-12-05	Cracks in access cutouts	11	1
		72-21-05	Horizontal stabilizer	2	2

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		61-22-02		Landing gear rotation lever	1	1
		61-22-03		Elevator hinge fittings	2	1
		61-23-02		Elevator tab tension rods	3	1
		61-26-02		Tail heater inspection	3	1
		62-08-06		Engine breather duct overheat detectors.	3	1
		62-09-02		Oil line magnetic plug and filter	4	1
		62-21-01		Oil temperature indicating system	4	1
		63-03-02		Rudder balance weight	4	1
		63-18-01		Elevator hinge bolts	5	1
		64-01-03		Lubrication of sealed couplings	6	1
		64-02-04		Control system couplings	7	1
		65-04-03		Elevator antiflutter gear box strut	7	1
		66-27-04		Main landing gear keel members	8	1
		67-19-03		Front spar web	9	1
		68-01-06		Main landing gear bogie beam	9	1
		68-26-03		Stabilizer rib cracks	11	1
		71-20-06		Inspect horizontal stab.	1	2
		74-04-04		Main landing gear attach fitting	2	2
		74-04-05		Main landing gear uplock fitting	3	2
		74-05-02		Main landing gear uplock cylinder	3	2
		75-08-01		Nose landing gear	4	2
		75-24-08		Landing gear attach bolts	4	2
		76-15-05		Nose landing gear bolts	5	2
		77-02-10		Fuselage bonding strips	6	2
		77-17-01		Structural integrity	8	2
		78-23-05		Spline wear on elevator travel	10	2
		79-10-04		Fireproofing	10	2
		79-10-12		MLF actuating system	11	2
		81-07-05		MLG crossbeam	11	2
		83-10-05		Hor. stab. rear attach fittings	21	2
		83-24-06		LSR upper MLG eye attach. pins	23	2
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		74-04-04		Main landing gear attach fitting	2	2
		74-04-05		Main landing gear uplock fitting	3	2
		74-05-02		Main landing gear uplock cylinder	3	2
		75-08-01		Nose landing gear	4	2
		75-24-08		Landing gear attach bolts	4	2
		76-15-05		Nose landing gear bolts	5	2
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		83-10-05		Hor. stab. rear attach fittings	21	2
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		71-04-04		Failure water door tension rod	1	2
		72-15-04		Flame propagation in engine fire zone	1	2
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		77-09-04		Main landing gear wheel well	6	2
		77-09-05		Nose landing gear nose rods	6	2
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		69-15-06		Engine throttle cable	1	1
		71-16-04		Battery inspection	1	2
		72-05-01		Flap actuator rod end	1	2
		72-15-03		Spoiler actuator bolts	2	2
		74-23-01		External power receptacle	2	2
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		76-18-07		Inverter input power	3	2
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24	A10CE	77-19-02		Cabin door locking mechanism	4	2
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24B	A10CE	77-19-02		Cabin door locking mechanism	4	2
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24D-A	A10CE	82-01-05	R2	Stall warning accelerometer unit ..... BW 86-06		2
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		49-44-02	Horizontal tail rework	3	1
		49-45-02	Throttle reverse stop rework	4	1
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		50-19-02	Rudder tub bracket	5	1
		50-36-01	Nose strut cylinder	5	1
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		52-11-02	Steel nacelle facings	6	1
		52-14-02	Propeller reversing rework	7	1
		53-23-01	Nose landing gear clutch plate	8	1
		55-15-02	Fire resistant prop. feathering lines	9	1
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		56-04-02	Nacelle fire protection	9	1
		56-18-01	Electrical power system rework	10	1
		56-20-04	Fire protection rework	11	1
		56-24-01	Propeller feathering line rerouting	11	1
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		57-03-01	Landing gear fitting inspection	13	1
		57-14-01	Landing gear pivot shaft sleeve	13	1
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		58-25-01	Elevator torque tube rivets	15	1
		59-01-01	Fire detector system rework	16	1
		59-02-01	Fire protection modifications	17	1
		59-04-02	DV window stop	18	1
		64-18-04	Nose landing gear retract forks	32	1
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		56-04-02	Nacelle fire protection	9	1
		56-18-02	Hot weather oil flow	10	1
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		56-24-02	Fuel mixture control	11	1
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		59-04-02	DV window stop	18	1
		60-14-01	Landing gear actuating cylinder rod	18	1
		63-06-03	Electrical fault detection panels	25	1
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		63-11-02	Main landing gear	27	1
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		64-18-04	Nose landing gear retract forks	32	1
		65-12-01	Main landing gear gland nut	34	1
		67-02-03	Rear service door	34	1
		67-07-05	Propeller gust lock	35	1
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		73-07-01	Wing front spar lower cap cracks	3	2
		73-18-01	Nose landing gear fatigue cracks	5	2
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		60-14-01	Landing gear actuating cylinder rod	18	1
		63-06-03	Electrical fault detection panels	25	1
		63-10-03	Wing lower skin cracks	25	1
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		63-15-04	Nose landing gear rod end eye-bolts	28	1
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		65-12-01	Main landing gear gland nut	34	1
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		62-20-02	Aileron override spring	24	1
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		64-05-03	Aileron trim gearbox assembly	30	1
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		69-19-06	Landing gear axle beam	40	1
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		62-07-01	Balance board trunnions	21	1
		62-18-01	Rudder tab balance weights	22	1
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		62-20-02	Aileron override spring	24	1
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		75-02-04	Potential fire hazard	10	2
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		64-05-03	Aileron trim gear box assembly	30	1
		64-12-04	Eng. start valve open warning system	31	1
		68-06-02	Seat support structure	37	1
		70-01-04	Main landing gear support beams	41	1
		73-26-10	Generator power failure	7	2
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G-159	1A17	62-26-02	Wing structure damage	1	1
		65-09-03	APU turbinsel and exducer	1	1
		65-13-04	Nose gear strut assembly	2	1
		66-10-03	Main gear uplock bracket	2	1
		67-04-01	Wing center section skin	3	1
		67-17-05	Engine mount tube	3	1
		67-31-08	Main landing gear fittings	4	1
		67-33-04	Aileron control idler	5	1
		69-20-03	Fuel filter blockage	5	1
		71-23-02	Cracks in wing to fittings	1	2
		72-07-08	Main landing gear drag brace	1	2
		72-24-04	Cracks in tab actuator mount	2	2
		73-14-07	Pressure dome cracks	2	2
		74-23-08	Fire extinguishers	5	2
		77-13-01	Jumpseat	7	2
		79-06-03	Electrical shunts	10	2
		81-06-02	Incorporation of AFM revisions	10	2
		84-20-08	Forward/aft eng. mount assys.	12	2
G-1159	A12EA	73-16-05	Autopilot disconnect button	2	2
		73-16-07	Pressure dome cracks	2	2
		74-11-05	Fire extinguisher circuits	3	2
		74-12-04	Automatic flight control system	3	2
		74-17-05	Ground spoilers	4	2
		74-25-03	Flight power shut-off valve	5	2
		75-06-08	DC and AC power	5	2
		75-11-07	Elevator trim	6	2
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		76-18-12	Generator terminals	7	2
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		79-06-03	Electrical shunts	10	2
		81-06-07	Landing gear system	10	2
		81-24-02	Hydraulic system fluid flow	11	2
		82-11-02	Elevator and/or trim tab	11	2
G-1159A	A12EA	81-24-02	Hydraulic system fluid flow	11	2
G-1159B	A14EU	82-11-02	Elevator and/or trim tab	11	2
HAMBURGER FLUGZEUGBAU					
HFB 320 HANSA	A14EU	76-07-13	Camlock housing	1	2

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HAWKER SIDDELEY AVIATION					
(See DEHAVILLAND, BRITISH AEROSPACE)					
HOWARD, DEE CO.					
Howard 500	A1SW	67-03-03	Elevator torque tube collars	1	1
		67-03-04	Flap cable support clamps	1	1
ISRAEL AIRCRAFT INDUSTRIES, LTD.					
1121 Series	A2SW	69-08-10	Trim capability	1	1
		69-12-08	Fuel supply hose	1	1
		73-11-05	Main landing gear trunnion bosses	1	2
		74-03-03	Main landing gear failure	1	2
1121	A2SW	75-16-16	Autopilot	2	2
		78-24-04	Battery temperature warning system	3	2
		81-01-08	Placard - operating speeds	4	2
1121A	A2SW	75-16-16	Autopilot	2	2
		78-24-04	Battery temperature warning system	3	2
		81-01-08	Placard - operating speeds	4	2
1121B	A2SW	75-16-16	Autopilot	2	2
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1123 Series	A2SW	74-03-03	Main landing gear failure	1	2
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		77-15-17	Hydraulic pressure line	2	2
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		81-07-07	Intercom system overheating	5	2
1124 Series	A2SW	80-19-15	Electrical wiring at F.S. 112	3	2
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KAWASAKI HEAVY INDUSTRIES					
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		81-14-05	Pitch bearing housings	3	2
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		82-27-06	Cracks in main rotor hubs	4	2
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KV107-11A	H1PC	78-01-17	Rotor shafts	1	2
		80-15-11	Quill shafts	3	2
		81-04-10	Cyclic stick boots	3	2
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LEAR JET INDUSTRIES, INC.					
(See GATES LEARJET)					
LOCKHEED AIRCRAFT CORP.					
PV-1	LTC 13	58-08-03	CB fire extinguisher system	31	1
		58-11-03	Rubber cable attachment	31	1
		59-16-02	Stabilizer spar	35	1
		61-04-04	Landing gear drag strut plates	50	1
		61-21-06	Landing gear lower drag strut	52	1
		61-22-06	Elevator control mast castings	53	1
		63-21-04	Elevator trim tabs	68	1
		67-03-03	Elevator torque tube collars	83	1
		67-03-04	Flap cable support clamps	84	1
B-34	LTC 13	59-16-02	Stabilizer spar	35	1
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		61-21-06	Landing gear lower drag strut	52	1
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		47-10-03	Rudder and elevator circuit breakers	2	1
		47-10-04	Engine autosyn transmitter jumpers	2	1
		47-10-05	Landing gear selector valve	2	1
		47-10-06	Fuel tank shutoff valves	2	1
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		54-22-01	Flexible hose replacement	24	1
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1049 Series	6A5	54-22-01	Flexible hose replacement	24	1
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		55-23-02	Outer wing main beam web	26	1
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YS-11	A1PC	74-12-10		Auxiliary power unit	1	2

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		69-10-01		Main landing gear pistons	1	1
		70-12-06		Nose gear shimmy	2	1
		70-24-03		Engine fire control handle	2	1
		71-03-03		Flap track attachment lug	1	2
		71-25-04		Failure of aileron control cables	1	2
		72-14-04		Main gear door torque tube	2	2
		72-19-03		Landing gear side brace	2	2
		75-01-03		Landing gear warning system	6	2
		75-08-11		Electrical power in flight	7	2
NA-265-20 (T-39B)	A2WE	68-20-01		Horizontal stabilizer support	1	1
		70-12-06		Nose gear shimmy	2	1
		71-03-03		Flap track attachment lug	1	2
		71-25-04		Failure of aileron control cables	1	2
		72-14-04		Main gear door torque tube	2	2
		72-19-03		Landing gear side brace	2	2
		75-01-03		Landing gear warning system	6	2
		75-08-11		Electrical power in flight	7	2
NA-265-30 (T-39D)	A2WE	68-20-01		Horizontal stabilizer support	1	1
		70-12-06		Nose gear shimmy	2	1
		71-03-03		Flap track attachment lug	1	2
		71-25-04		Failure of aileron control cables	1	2
		72-14-04		Main gear door torque tube	2	2
		72-19-03		Landing gear side brace	2	2
		75-01-03		Landing gear warning system	6	2
		75-08-11		Electrical power in flight	7	2
NA-265-40	A2WE	68-20-01		Horizontal stabilizer support	1	1
		70-02-09		Engine thrust reverser inspection	2	1
		70-12-06		Nose gear shimmy	2	1
		71-03-03		Flap track attachment lug	1	2
		71-25-04		Failure of aileron control cables	1	2
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		72-23-04		Main gear strut cylinder	3	2
		73-18-03		Front and rear wing spars	4	2
NA-265-60	A2WE	68-20-01		Horizontal stabilizer support	1	1
		70-02-09		Engine thrust reverser inspection	2	1
		70-12-06		Nose gear shimmy	2	1
		71-03-03		Flap track attachment lug	1	2
		71-25-04		Failure of aileron control cables	1	2
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		81-15-51	R1	Modified per STC SA687NW	18	2
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		82-26-02		Vertical floor panel inspection	20	2
MA-265-65	A2WE	82-10-02	R1	Flap screwjack insp	19	2
		82-26-02		Vertical floor panel inspection	20	2
		82-27-10		Hor. stab. trim actuator	20	2
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		75-01-03		Landing gear warning system	6	2
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		79-11-01		Attaching bolts	5	2
		79-16-03		Wing structure components	5	2
		79-19-03		Fuselage skin panel buttstraps	6	2
		79-19-04		Flap control rods	6	2
		80-03-02	R1	MLG beam sub-assembly	6	2
		80-15-07		Fuel system	7	2
		81-04-09		Nose wheel steering actuator	7	2
		81-04-11		Nose landing gear assembly	8	2
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		81-14-04		MLG actuator assembly	10	2
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SD3-60	A81EU	84-07-01		Elevator tab drive mod.	13	2
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		84-24-52		AFM change - temperature BW 86-04		2
		85-16-08		Cherrymax rivets	15	2
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		66-19-04		Tail rotor blades	5	1
		74-15-06		Tail rotor gear box	3	2
		75-07-07		Emergency hatch handles	10	2
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		75-13-01		Main rotor assembly	13	2
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		82-01-07		Horizontal hinge pins	21	2
		85-17-08		Main rotor head bolts	25	2
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HH-3C, CH-3E, HH-3E)	H8EA	67-29-05		Rotary wing hub hinge pins	5	1
		68-19-07		Rotor blade spindles	5	1
		70-09-03		Tail gear box pitch beams	7	1
		71-05-01		Main landing gear axle	1	2
		71-21-03		Link in servo valve input linkage	1	2
		72-03-01		Alum. forgings flight control system ..	1	2
		78-20-05	R4	Main rotor spindles	19	2
		79-12-10		Tail rotor blade	20	2
		80-17-07		Horizontal hinge pins	21	2
		84-01-51		Rotary wing head shaft nut	22	2
		84-25-01		Main gearbox inspection	23	2
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		70-15-01		Cabin heater blower	7	1
		72-16-06		Electrical feeder wire gage	2	2
		72-25-04		Loss of main rotor control	2	2
		73-15-01		Rear fuselage and pylon fittings	2	2
		74-20-07	R5	Main rotor blades	5	2
		74-20-09		Main rotor blades	8	2
		76-08-01	R1	Tail rotor pylon	16	2
		78-12-05		Fixed S-61L type landing gears	18	2
		84-11-03		Possible flange failure	23	2
		85-18-05		Main rotor blades	26	2
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S-61D	H2EA	72-25-04		Loss of main rotor control	2	2
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		76-08-01	R1	Tail rotor pylon	16	2
S-61E	H2EA	73-15-01		Rear fuselage and pylon fittings	2	2
(RH-3A)		76-08-01	R1	Tail rotor pylon	16	2
S-61L	1H15,	68-20-08		Functional test of AFCS	6	1
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		70-08-03		Heater inlet check valve	7	1
		70-15-01		Cabin heater blower	7	1
		72-16-06		Electrical feeder wire gage	2	2
		72-25-04		Loss of main rotor control	2	2
		73-15-01		Rear fuselage and pylon fittings	2	2
		74-20-07	R5	Main rotor blades	5	2
		74-20-09		Main rotor blades	8	2
		74-25-05		Main rotor blades	9	2
		74-25-06		Takeoff gross weight limitation	10	2
		75-12-01		Main rotor blades	13	2
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		76-03-02		Fractures in barrel nuts	15	2
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		74-25-05		Main rotor blades	9	2
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		74-25-06		Takeoff gross weight limitation	10	2
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		72-25-04		Loss of main rotor control	2	2
		74-20-07	R5	Main rotor blades	5	2
		74-20-09		Main rotor blades	8	2
		74-25-05		Main rotor blades	9	2
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(See BOEING AIRPLANE CO.)

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AIRWORTHINESS DIRECTIVE SUMMARY SUBJECT INDEX

LARGE AIRCRAFT

JULY 1986

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The indexes, which are published twice a year, are intended to be used as a guide only and should not be relied upon as conclusive evidence of AD applicability. Aircraft operators, inspectors, and persons performing maintenance are reminded of their responsibility under sections 39.3, 43.11, and 43.13 of the Federal Aviation Regulations, respectively, to assure compliance with all applicable AD's.

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		84-10-06	R1	23	2
		86-08-04		BW 86-08	2
		86-12-02	L	BW 86-12	2
TSE 231 Series	E4WE	73-26-03		1	2
		73-26-07	R3	1	2
		78-25-08	R3	11	2
		84-01-04		18	2
TFE 731 Series	E6WE	74-11-06		3	2
		74-13-09		4	2
		74-18-12		4	2
		74-18-16		5	2
		74-23-05		5	2
		75-07-10		6	2
		78-22-10		10	2
		80-16-04		12	2
		81-24-08		13	2
		82-23-03	R1	17	2
		86-03-01		BW 86-03	2
		86-11-05		BW 86-12	2
ATF3-6, -6A Series	E7WE	84-20-51		25	2
		85-04-51		26	2
GENERAL ELECTRIC CO., FLIGHT PROPULSION DIV.					
CJ805-3 Series	306	62-11-01		1	1
		66-04-01		2	1
		67-28-04		3	1
		69-02-02		3	1
CJ-805-23 Series	1E	62-11-02		1	1
		66-04-01		2	1
		67-28-04		3	1
		69-02-02		3	1
CT58 Series	1E3	64-26-02		1	1
		67-01-02		2	1
		69-17-03		4	1
		69-23-02		4	1
		74-25-01		2	2
		76-13-02		5	2
		78-26-08		9	2
		79-23-04		10	2
		81-02-02		13	2
		81-18-03		13	2
T58 Series	1E3	64-26-02		1	1
		67-01-02		2	1
		69-17-03		4	1
		69-23-02		4	1
CT7	E8WE	86-10-51	T	BW 86-10	2
CT64 Series	E13EA	77-02-03		6	2
CJ610 Series	1E16	73-23-05		1	2
		75-19-05		3	2
		78-07-06		8	2
		80-08-06	R1	11	2
		85-18-03		17	2
J85-GE-17B	1E16	73-23-05		1	2
CF700 Series	E7EA	73-23-05		1	2
		75-05-13		2	2

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		75-19-05	3	2
		78-07-06	8	2
		80-08-06 R1	11	2
		85-18-03	17	2
CF6 Series	E23EA	72-16-03	1	2
		74-14-08	2	2
		75-22-11	4	2
		76-05-10	5	2
		76-17-01	6	2
		76-21-04	6	2
		77-08-08	7	2
		78-07-03	7	2
		79-13-09	10	2
		80-03-06	10	2
		81-19-08	14	2
		82-20-03	15	2
		82-25-08	15	2
		84-01-01	16	2
		85-15-51	17	2
		85-25-56 T	18	2
		86-12-03	BW 86-12	2
PRATT & WHITNEY AIRCRAFT DIVISION OF UNITED AIRCRAFT CORP.				
All Models with Reciprocating Engines		56-06-02	4	1
R-2800 Series	Group 5E-8	49-40-02	1	1
		51-05-01	1	1
		56-03-02	3	1
		64-10-05	11	1
Double Wasp CA Series	E-231	48-22-01	1	1
		49-40-02	1	1
		51-05-01	1	1
		56-03-02	3	1
Wasp Major TSB3-G or B5	E-247	51-09-01	2	1
		57-06-03	5	1
R-2000 Series	Group 5-E-5	53-09-01	3	1
Turbo Wasp JT3C Series	E290	59-10-09	5	1
		60-22-02	5	1
		60-23-04	6	1
		62-09-04	6	1
		62-17-06	9	1
		64-05-05	10	1
		66-16-06	13	1
		66-21-01	14	1
Double Wasp CB Series	E-264	48-22-01	1	1
		56-03-02	3	1
Turbo Wasp JT3D Series	1E8	61-26-04	6	1
		62-14-05	8	1
		62-16-05	8	1
		62-22-02	10	1
		64-05-05	10	1
		66-05-05	12	1
		67-28-05	15	1
		69-01-04	16	1
		73-07-08	6	2
		73-15-02	7	2
		74-15-05	10	2
		75-04-07	12	2
		78-11-03	22	2
		80-12-51 R2	28	2
		80-19-03	30	2
		82-14-02	31	2
Turbo Wasp JT4A Series	E-291	62-10-04	7	1
		64-05-05	10	1
		64-11-04	11	1

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		68-12-03		15	1
		71-02-02		1	2
		71-06-03		2	2
		76-01-08		13	2
JT8D Series	E2EA	70-02-02		16	1
		70-11-03		18	1
		70-25-08		19	1
		70-26-05		19	1
		71-07-01		2	2
		71-25-07		6	2
		75-01-01		11	2
		75-05-06		12	2
		76-12-06		15	2
		76-20-02		15	2
		76-24-01		17	2
		77-03-06		19	2
		77-07-11		20	2
		77-16-12		20	2
		78-17-02	R3	23	2
		78-23-12		26	2
		80-11-03	R1	27	2
		80-15-51		29	2
		81-08-02	R2	31	2
		85-19-51	R1	36	2
		86-02-52	R1	BW 86-07	2
		86-04-01		BW 86-04	2
		86-08-04		BW 86-08	2
		86-09-02		BW 86-09	2
T733 Series	E3EA	75-13-04		13	2
JT9D Series	E20EA	70-25-03		18	1
		71-24-03		4	2
		73-16-05		7	2
		74-10-04		8	2
		74-10-05	R1	8	2
		76-13-03		14	2
		76-20-03		16	2
		76-24-03		16	2
		77-01-07		19	2
		78-08-13		21	2
		78-16-05		22	2
		78-17-08		25	2
		82-16-10		32	2
		83-26-03		33	2
		83-22-52	R1	33	2
		85-12-02		34	2
		86-03-03		BW 86-03	2
		86-07-12		BW 86-07	2
		86-09-01		BW 86-09	2
		86-10-01		BW 86-10	2
		86-11-04		BW 86-11	2
JT12A Series	1E9	71-17-06		3	2
		71-24-05		5	2
J60P-5B	1E9	71-17-06		3	2
JFTD12A	E15EA	71-24-05		5	2
PT6A-42	E4EA	86-10-05		BW 86-10	2
PT6T-3	E22EA	75-11-03		27	2
JT15/ Series	E25EA	78-26-05		10	2
		78-17-06		24	2
ROLLS-ROYCE LIMITED					
All Models Dart Engines	R-283, R-297, E5EU	63-07-04		2	1

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		60-04-05		1	1
		70-15-13		5	1
		70-22-07		5	1
		71-06-05		1	2
		72-16-05		2	2
		72-18-02	R1	4	2
		73-21-04		8	2
		77-20-04	R1	13	2
		77-20-05	R1	14	2
		78-24-01	R1	19	2
		80-23-01		21	2
		82-09-02	R1	22	2
		85-03-03	R1	24	2
Dart Series 525, 526, 527, 528, 529, 531, 532, 535	E-297	67-15-03		3	1
		70-15-13		5	1
		70-22-07		5	1
		72-16-05		2	2
		72-18-02	R1	4	2
		73-21-04		8	2
		77-20-04	R1	13	2
		77-20-05	R1	14	2
		77-21-05		15	2
		78-24-01	R1	19	2
		80-23-01		21	2
		82-09-02	R1	22	2
		85-03-03	R1	24	2
		85-06-01		25	2
Tyne 506, 512, 515	E-311	62-19-04		1	1
		63-18-05		2	1
		72-18-02	R1	4	2
		80-23-01		21	2
Spey Mark 506, 510, 511, 555 Series	E2EU	67-08-06		2	1
		67-22-08		3	1
		68-17-05		5	1
		72-20-07		5	2
		78-16-07		16	2
		86-11-03		BW 86-11	2
Dart 542 Series	E5EU	67-27-06		4	1
		70-25-06		6	1
		72-18-06		1	2
		72-16-05		2	2
		72-23-02		5	2
		73-12-03	R1	7	2
		73-21-04		8	2
		77-20-04	R1	13	2
		77-21-05		15	2
		78-07-08		15	2
		78-24-01	R1	19	2
		80-23-01		21	2
		85-03-03	R1	24	2
Dart 533, 534, 536, 550		77-21-05		15	2
		80-23-01		21	2
Dart 543		77-21-05		15	2
		78-07-08		15	2
		80-23-01		21	2
RB-211 Series	E12EU	73-10-01		7	2
		75-16-08		9	2
		75-16-09		9	2
		76-15-09		9	2
		76-26-01		11	2
		78-19-01		17	2
		80-13-05	R1	20	2
		82-12-05		23	2
		83-01-03		23	2
		85-10-05	R1	BW 86-05	2
		86-07-01		BW 86-07	2

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Viper MK 521, 522, 526	E3EU	77-13-20	12	2
Viper MK 601-22	E15EU	76-20-05	11	2
		77-13-20	12	2
		80-02-05	20	2
UNITED AIRCRAFT OF CANADA (See PRATT & WHITNEY OF CANADA)				
WRIGHT AERONAUTICAL CORP.				
C18BA, C18BD Series	R-218	52-20-02	1	1
C18CA, C18CB Series	E270	54-25-02	1	1
		57-06-04	1	1
TC18DA Series	R-272	54-25-02	1	1
		57-06-04	1	1
		57-08-07	1	1
		57-24-01	2	1
		58-13-05	2	1
		59-17-01	3	1
		60-03-10	3	1
		60-08-05	3	1
TC18EA Series	R-287	57-06-04	1	1
		57-08-07	1	1
		57-24-01	2	1
		58-13-05	2	1
		59-17-01	3	1
		60-03-10	3	1
		60-08-05	3	1

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PROPELLER MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
AEROPRODUCTS OPERATIONS				
(See DETROIT DIESEL-ALLISON DIVISION)				
CURTISS-WRIGHT CORP., CURTISS DIVISION				
C632S Series	P-847	49-30-01	1	1
		53-05-01	1	1
		56-08-01	3	1
		76-14-09	1	2
C634D Series	P-883	53-05-01	1	1
		56-08-01	3	1
C634S Series	P-825	53-05-01	1	1
		56-08-01	3	1
		59-07-01	3	1
		59-18-03	4	1
		63-24-01	4	1
C644S Series	P-826	53-05-01	1	1
DETROIT DIESEL-ALLISON DIV.				
A644 WN-606 Series	P-898	60-17-01	1	1
		65-05-01	1	1
		65-06-02	2	1
		67-08-01	3	1
		67-17-01	4	1
		67-20-01	5	1
		74-10-07	1	2
		79-24-07	1	2
DOWTY BOTOL LTD.				
R-/4-20-4/ Series	P-980	66-09-01	1	1
		66-09-02	1	1
		67-10-03	1	1
		69-19-03	3	1
		69-23-04	5	1
		70-16-02	5	1
		72-07-07	1	2
		72-14-01	3	2
		81-16-02	11	2
R-/4-30-4/ Series	P-899	66-09-01	1	1
		66-09-02	1	1
		67-10-03	1	1
		68-20-07	2	1
		69-23-04	5	1
		70-16-02	5	1
		70-16-08	6	1
		72-07-07	1	2
		72-14-01	3	2
		73-12-02	3	2
		75-15-04	5	2

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		77-09-07		8	2
		78-09-03		10	2
		81-16-02		11	2
		81-16-03		13	2
R.4-40.5/	P2EU	82-08-01		14	2
R./4-40-4.5/ Series	P2EL	78-16-02		5	1
		78-16-08		6	1
		72-14-01		3	2
		76-07-03		4	2
		75-16-18		6	2
		77-16-03		9	2
		78-16-02	R1	10	2
		81-16-02		11	2
		82-08-01		14	2
GENERAL MOTORS CORP., ALLISON DIV.					
(See DETROIT DIESEL-ALLISON DIV.)					
HAMILTON STANDARD DIVISION, UNITED AIRCRAFT CORP.					
2B17 blades		50-52-01		1	1
		58-24-01		8	1
2J17 blades		56-19-02		2	1
		58-19-02		8	1
4U18 governors		57-16-04		6	1
		58-03-02		6	1
5U18 governors		57-16-04		6	1
		58-03-02		6	1
		58-18-01		7	1
5U21 governors		59-10-05		9	1
Model 67000 reverse solenoid valve		54-01-01		1	1
34D	P-856	54-01-01		1	1
		54-01-02		1	1
		54-10-01		2	1
		58-08-04		7	1
34E	P-881	54-01-01		1	1
		54-01-02		1	1
		58-08-04		7	1
		58-08-05		7	1
		60-20-02		10	1
43D	P-851	54-01-01		1	1
		54-01-02		1	1
43E	P-871	54-01-01		1	1
		54-01-02		1	1
		55-05-02		2	1
		58-08-04		7	1
		58-08-05		7	1
43E	P-887	58-08-04		7	1
		58-08-05		7	1
232	P-853	54-01-01		1	1
		54-01-02		1	1
		54-10-01		2	1
		58-08-04		7	1
242	P-870	54-01-01		1	1
		54-01-02		1	1
		54-10-01		1	1
		55-09-04		2	1
		58-08-04		7	1

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		75-03-05	1	2
		76-05-06	2	2
		86-01-07	BW 86-01	2
Propeller Blades		56-22-01	5	1
		57-13-05	5	1
		58-22-01	8	1
		60-03-08	9	1
		64-03-03	10	1
		81-13-06 R1	4	2
All governors installed on Wright TC18DA & TC18EA Series Engines		56-20-06	5	1
24FF propellers	P1NE	79-25-09	2	2
		81-12-05	3	2
HARTZELL PROPELLER INC.				
T10173, T10176 Blades		72-08-04	1	2
T10173H, T10176H, T10178H, T10282H Alloy Blades		74-14-01	2	2
EHC-A3V Series	P6EA	77-14-07	3	2
HC-B3T Series	P15EA	83-08-01 R1	5	2
		86-05-12	BW 86-05	2
HC-B4T Series	P40EA	83-08-01 R1	5	2
HC-B5M Series	P44GL	83-08-01 R1	5	2
		86-06-02	BW 86-06	2
HC-B4M Series	P56GL	83-08-01 R1	5	2
HATIER-FIGEAC				
FH.146 Propellers	P1EU	71-03-01	1	2
		82-23-07	1	2

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ADS SUPPLY COMPANY				
Unapproved parts		77-05-05	1	2
AIR ASSOCIATES				
M-2e4 safety belts		50-18-03	1	1
AIRBORNE MANUFACTURING CO.				
Engine driven pumps 113A, 200CC, 200CW, 220CC, 220CW, 221CC, 222CW		76-16-02	1	2
Dry air pumps 211CC, 212CW, 242CW, 441CC, 442CW		79-13-08	1	2
AIRCRAFT BELT & TRIM CORP.				
LBM-1900 safety belts		54-20-01	1	1
AIRCRAFT TANK SERVICE, INC.				
Refueling system		82-18-09	1	2
AIR CRUISERS				
Emergency evacuation slides				
15D22129		65-24-01	1	1
15D22129 and 15D22129-1		66-18-01	1	1
P/N 19D22368( ), 22D30022-( )		76-07-02	2	2
Life Rafts				
12D11751-7, 12D11751-8 and 18D23350-5		71-02-01	1	2
D23835-403		82-05-06	2	2
Life Jackets				
Model AD-8		73-01-03	1	2
Life rafts and assembly				
D23835, 12D11751, 17D23336, 18D23350, 21D23541, 21D23548, 22D23585		75-26-06	1	2
AIRESEARCH				
GTP30-141 APU		70-03-07	1	1
TSCP 700-4B, -5 APU		74-10-11	1	2
		74-12-08	2	2
		77-17-06	6	2
		78-10-04	7	2
GTCP30 Series		74-24-09	3	2

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GTCP85 Series		79-10-12		8	2
GTCP660 Series		75-01-06		4	2
		75-05-17		5	2
AIROTECH, INC.					
Harness/Container assemblies		85-09-01		1	2
AIR SPARES INTERNATIONAL					
Unapproved parts		77-05-05		1	2
ARIES AIRCRAFT SUPPLIES, INC.					
Battery packs		81-21-05		1	2
AUTOCRAT MANUFACTURING CO.					
RM 1-1700 series safety belts		61-20-01		1	1
RM 1-2001, RM 3-1501, RM 3-6001 and RM 3-7001 Series safety belts		62-23-01		1	1
BEECH AIRCRAFT CORP.					
P/N 113652 safety belt buckles		55-08-01		1	1
BAR-109 air conditioners		66-02-01		1	1
BENDIX					
Wheel Assemblies P/N's 2601901, 2603561		72-04-02		1	2
S-20 Series, Magnetos		74-26-09		1	2
		78-09-07	R3	2	2
S-200 Series, Magnetos		74-26-09		1	2
S-1200 Series, Magnetos		74-26-09		1	2
		78-09-07	R3	2	2
		82-13-01		7	2
D-2000 Series, Magnetos		78-09-07	R3	2	2
		78-18-04		3	2
		79-12-07		4	2
		82-11-05		6	2
D-2200 Series, Magnetos		78-18-04		3	2
		79-12-07		4	2
		82-11-05		6	2
D-3000 Series, Magnetos		78-09-07	R3	2	2
Switches		76-07-12		2	2
BROWN-LINE CORP.					
MB-2002-2 safety belts		59-24-03		1	1
CHAMPION SPARK PLUG CO.					
Oil filters CH48108, CH48109		77-12-05		1	2
CHRONALLOY					
Model RLB-6 Series Rescue locator beacons		74-24-07		1	2
C-O-TWO DIVISION, FYR-FYTER CO.					
ASDC-2 and ASDT-3 smoke detectors		59-24-02		1	1

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DAVIS AIRCRAFT PRODUCTS, INC.				
FDC-1650 series safety belts		57-14-02	1	1
FDC-2700 series safety belts		64-10-03	1	1
DOWTY ROTOL LTD.				
Gear Box FTG-14/6A, B, 0, 1, 2B		67-02-04	1	1
ECM CORPORATION				
Seat belts and harnesses E2900, E8000		80-05-04	1	2
EUREKA WILLIAMS CO.				
EW-101-WL-( )-8 survival lights		65-06-04	1	1
FAIRCHILD INDUSTRIES PRODUCTS				
Cockpit voice recorder A100		81-04-06	1	2
FIRESTONE				
Aircraft tires 18x5.5/10/Mach I/00450		78-20-12	1	2
FLIGHT EQUIPMENT AND ENGINEERING CORP.				
Aircraft seats 639 and 675 Series		82-18-10	1	2
FROST ENGINEERING CORPORATION				
Emergency descent devices		81-06-02	1	2
GARRETT TURBINE ENGINE CO.				
Auxiliary power units		85-14-02	1	2
GODFREY ENGINEERING CO. LTD.				
Cabin superchargers, Type 15, Marks 6, 9, & 14		60-23-01	1	1
		69-21-02	1	1
GOODRICH, B. F.				
26 x 6.6, 14 PR Tubeless 200 MPH Tire		71-14-02	1	2
Aircraft tires		83-26-03	3	2
Wheel assembly		74-24-10	1	2
		85-06-02	4	2
Brake assemblies		81-03-03	1	2
Emergency evacuation slide/rafts 7A1340, 7A1342, 7A1371, 7A1373		83-22-08	2	2
		84-24-04	3	2
GOODYEAR AEROSPACE CORP.				
Wheel assembly		75-05-05	1	2
Fuel cells		78-05-06	1	2
GRAVES, Herb M.				
Herbie Hog parachute		84-10-03	1	2
GRAVINER MANUFACTURING CO., LTD.				
Fire extinguishers		59-06-08	1	1
		62-11-03	1	1
		67-23-05	2	1

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EQUIPMENT NAME & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
HAMILL MANUFACTURING COMPANY				
Safety belts GA-4, GA-5		80-05-02	1	2
INTERNATIONAL INFLATABLES CO.				
Regulators P/N 68240		71-14-03	1	2
Regulators P/N 70003		73-11-03	1	2
JANITROL AERO DIVISION (MIDLAND-ROSS CORP.)				
Combustion heaters B1580, B2030, B3040, BA050		83-07-03	1	2
JET ELECTRONICS & TECHNOLOGY				
Emergency power supplies PS-823( )		80-18-08	1	2
Emergency power supplies PS-835		82-21-04	1	2
Area navigation systems DAC-2000, DAC-7000		80-19-19	1	2
KIDDE AND OVERLAND				
A4532-N1 smoke detectors		59-28-02	1	1
Series I and II actuating valve		64-13-04	1	1
Cartridges		84-18-07	1	2
LEIGH SYSTEMS				
Sharc 7 series emergency locator transmitter		74-18-15	1	2
		74-20-10	1	2
LITTON SYSTEMS				
LTN-72 Inertial navigation systems		75-22-13	1	2
MARCO (MAXIMOFF RESEARCH CO.)				
15-1 safety belts		62-28-05	1	1
MICRODOT INC.				
Model 1410 cockpit voice recorder		71-21-10	1	2
NARCO				
ELT-10 Emergency locator transmitter batteries		77-02-08	1	2
PACIFIC INFLATABLES COMPANY				
Flotation devices 4000, 4000E Series		80-07-13	1	2
PACIFIC SCIENTIFIC CO.				
Restraint systems		80-01-05 R1	1	2
		83-11-03	2	2
P&W AVION CO.				
PA-5 life vests		67-18-04	1	1
C-30A life rafts		74-22-03	1	2
LSR-174( ) - 174(2) evacuation slides		75-16-23	1	2
PARKER HANNIFIN CORP.				
Airborne dry air pumps and auxiliary dry air pumps		86-01-04	RW 86-01	2

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EQUIPMENT MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
PRESTOLITE CO.				
Alternator cooling fans P/N PU 1605series		72-15-02	1	2
PURITAN-BENNETT AERO SYSTEMS COMPANY				
Oxygen masks		81-08-04	1	2
PYROTECTOR, INC.				
Fire detectors, P/Ns 30-207-Series		78-14-09	1	2
RAJAY INDUSTRIES				
Oxygen regulators		80-16-05	1	2
ROSEMOUNT, INC.				
Pitot static heater element		80-12-15	1	2
RUPERT PARACHUTE CO.				
Safety belts Model 50, M50, 65, 80, S-2194		61-08-02	1	1
RUSSELL MANUFACTURING CO, THE				
RM-3 and RM-4 safety belts		56-21-04	1	1
RM-23 safety belts		61-20-03	1	1
SARGENT INDUSTRIES, PICO DIVISION				
Regulator P/N 30001		74-17-01	1	2
SCOTT AVIATION, DIVISION OF ATO INC.				
Chemical oxygen generators P/N's		73-26-05	1	2
801386-01, -02, -03				
801462-01, -02, -03				
Oxygen clyinders		84-02-08	1	2
Oxygen mask connectors		85-26-03	1	2
SECUR AIGLON				
Safety belts		85-26-01	1	2
SIERRA ENGINEERING CO.				
Passenger oxygen masks, model 289-601		74-14-07	1	2
SLICK ELECTRO, INC.				
Magneto models 447, 662, 664, 667, 668, 676, & 680		74-18-05	1	2
SPENCER AIRCRAFT INDUSTRIES				
Unapproved parts		77-05-05	1	2
SPRAGUE ENGINEERING				
A-200-25, A-200-50		70-10-04	1	1
STEWART-WARNER				
Combustion heaters		81-09-09	1	2
STRONG ENTERPRISES				
Parachute ripcord handles		80-13-01	1	2
SUNDSTRAND				
Sensors P/Ns 965-4020-003, 965-4020-004		78-01-01	1	2

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EQUIPMENT MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
SUNDSTRAND DATA CONTROL				
Cockpit Voice Recorders AV-557A, -557B, -557C		83-16-01 R1	1	2
Digital Flight Data Recorder 573A		84-03-09	1	2
SWITLIK PARACHUTE CO.				
Life preservers, flotation devices		83-01-06	1	2
TECO, INC.				
603 Seats		67-10-05	1	1
UNITED AIRCRAFT OF CANADA				
Auxiliary power unit (APU) Model ST6L-73		76-05-03	1	2
UNIVERSAL OIL PRODUCTS, INC. (UOP)				
Aircraft seats 900 Series		80-22-06	1	2
WHELEN ENGINEERING CO., INC.				
A427 strobe light flash tubes		75-05-04	1	2
WOOD ELECTRIC				
105, 106, 107, 108, 147, 152, 254, 447, 448, and 2100 Series circuit breakers		70-22-04	1	1
3-Ring, Incorporated				
Parachute harnesses		84-08-05	1	2

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AIRWORTHINESS DIRECTIVE SUMMARY SUBJECT INDEX

LARGE AIRCRAFT

JULY 1986

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INSTRUMENT MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
COLLINS				
AP106 Autopilots		75-12-10	1	2
Radio magnetic indicator 332C-10		76-07-09	1	2
Flight director and horizontal situation indicators		85-22-10	2	2
EDISON, THOMAS A., INC.				
P/N 35534 fire detectors		52-23-01	1	1
195, 273 engine gage units		66-07-03	1	1
FAIRCHILD CAMERA & INSTRUMENT CORP.				
5424( ) Series flight data recorders		65-05-03	1	1
FILOTECNICA SALMOIRAGHI				
Airspeed indicators, S/N 3800 and below		77-15-10	1	2
GARWIN, INC.				
22-802-03 through -14, 22-808-022 engine gage units		66-07-03	1	1
KING RADIO				
Autopilot systems		85-25-02	BW 86-03	2
KOLLSMAN				
Altimeters type A4086910021, A4186910028, A4186910029		69-24-05	1	1
B4545110001, B4545110011		75-05-14	1	2
LEAR, INC.				
L-2 series autonatic pilots		51-26-02	1	1
LOCKHEED AIRCRAFT SERVICE CO.				
109C, 109D flight data recorders		65-01-03	1	1
Model 209 digital flight data recorders		75-08-17	1	2
MITCHELL INDUSTRIES, INC. (EDO-AIRE)				
Navigation systems NSD-360		77-16-10	1	2
UNITED DATA CONTROL, INC.				
F-542 series flight data recorders		65-14-06	1	1

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INSTRUMENT MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
UNITED INSTRUMENTS				
Altimeters P/N No. 5932, 5934		74-24-13	1	2
Altimeters P/N No. 5934		86-05-02	BU 86-05	2

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RADIO MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
ANDREA RADIO CORP.				
AN/AIC-10A and AN/AIC-18(A-81) Intercommunication sets		62-13-01	1	1
BENDIX RADIO, DIVISION OF BENDIX AVIATION CORP.				
MI-51B Amspeaker		60-04-01	1	1
COLLINS RADIO CO.				
51R-1, 51R-2 receivers		50-48-02	1	1
		52-13-01	1	1
EDO CORP.				
345 and 345A airborne Loran A receivers		62-06-02	1	1
KING RADIO CORP.				
Model KCS-55		75-05-07	1	2
KAP 100, 150, KFC 150		85-23-07	BW 86-03	2

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GENERAL MAKE & MODEL	TC NO.	AD NUMBER*	PAGE NO.**	BOOK NO.
LITHIUM SULFUR DIOXIDE BATTERIES		79-18-05	1	2
NICKEL CADMIUM BATTERY		72-19-04	1	2
PRESSED STEEL TANK CO. DOT-3HT-3000 Compressed gas cylinders		75-22-23	1	2
RAZORBACK FABRICS, INC. Glass fiber fabrics		72-22-02	1	2
TRANSPORT CATEGORY AIRCRAFT Lavatory receptacles		74-08-09	1	2
Side facing seats		76-05-02	2	2

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